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4

PULP AND PAPER INVESTIGATION HEARINGS

HD 9821
AS
1908

1141
338

U. S.

SELECT COMMITTEE OF HOUSE OF REPRESENTATIVES

JAMES R. MANN, Illinois, *Chairman*

JAMES M. MILLER, Kansas

HENRY T. BANNON, Ohio

WILLIAM H. STAFFORD, Wisconsin

THETUS W. SIMS, Tennessee

WILLIAM H. RYAN, New York

NO. 27

WASHINGTON
GOVERNMENT PRINTING OFFICE

1908

4
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NO. 27
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1908a

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1900 24 1900

21

WOOD PULP, PRINT PAPER, ETC.

W. H. PARSONS & Co.,
PAPER MANUFACTURERS,
New York, May 27, 1908.

HON. JAMES R. MANN,
*Chairman Select Committee Pulp and Paper Investigation,
Washington, D. C.*

DEAR SIR: In compliance with your request, I beg to hand you herewith scale of wages paid by the Lisbon Falls Fibre Company and the Pejepscot Paper Company in the pulp and paper mills.

Yours, very truly,

D. S. COWLES,
President.

*Scale of wages of Lisbon Falls Fibre Company and Pejepscot Paper Company
pulp and paper mills.*

Machine tenders.....	\$3. 75
Second hands.....	2. 50
Third hands.....	1. 75
Fourth hands.....	1. 50
Fifth hands.....	1. 50
Engineers' beaters.....	2. 25
Assistant beaters.....	1. 50
Steam engineers.....	3. 00
Assistant engineers.....	2. 50
Firemen.....	2. 50 and 2. 25
Finishers, boss.....	3. 00 and 2. 50
Finishers' helpers.....	1. 65
Wood room.....	1. 60
Grinders and screens.....	1. 60
Outside.....	1. 50
Repair men.....	
Boss.....	3. 00
Machinists.....	3. 00
Carpenters.....	2. 25
Acid maker.....	2. 25
Cookers.....	2. 50

FLAMBEAU PAPER COMPANY,
Park Falls, Wis., May 27, 1908.

HON. JAMES R. MANN,
Washington, D. C.

DEAR SIR: In accordance with our promise we give you the following additional information which you required:

First. Statement showing from whom purchased, the number of tons, and the cost of spruce and hemlock sulphite delivered at our mill for the years 1903, 1904, 1905, 1906, 1907, and 1908. Also a summary showing the average price of both kinds of sulphite, figured on a basis of the cost to us for the total amount used of each kind for these years.

Second. Copy of proposition to us by Dean & Shibley, dated October 1, 1907.

Third. Copy of contract between Wisconsin Pulp Wood Company and ourself, dated October 22, 1904.

Fourth. Our highest priced contract in force at the present time is a one-year contract calling for 100 tons of No. 1 sheet print at a price of \$2.65.

Yours, truly,

FLAMBEAU PAPER COMPANY.
E. P. SHERRY, *President.*

Flambeau Paper Company—Cost of sulphite bought.

[Delivered at mill.]

	Tons.	Spruce.	Hemlock.
1903.			
Burgess Sulphite Fiber Co., Berlin, N. H.	137	<i>Per ton.</i> \$38.00	<i>Per ton.</i>
Do	94	37.00	
Do	39	38.00	
Green Bay Paper and Fiber Co., Green Bay, Wis.	11		\$37.00
Do	94		35.00
Sault Ste. Marie Pulp and Paper Co., Sault Ste. Marie, Ontario.	18	38.00	
Do	75	36.00	
Do	176	35.00	
Interlake Pulp and Paper Co., Appleton, Wis.	73		42.00
Hinckley Fiber Co., Hinckley, N. Y.	48	38.00	
Riordan Paper Mills, Hawkesbury, Ontario.	156	38.00	
Do	142	39.00	
Do	21	40.00	
Total	1,084		
1904.			
Rhineland Paper Co., Rhineland, Wis.	9		35.00
Riordan Paper Mills, Hawkesbury, Ontario.	144	39.00	
Do	38	40.00	
Nekoosa Paper Co., Nekoosa, Wis.	18		35.00
Green Bay Pulp and Paper Co., Green Bay, Wis.	11	37.00	
Do	9		35.00
Dells Pulp and Paper Co., Eau Claire, Wis.	245		
Hinckley Fiber Co., Hinckley, N. Y.	15	38.00	
Burgess Sulphite Fiber Co., Berlin, N. H.	518	37.00	
Interlake Pulp and Paper Co., Appleton, Wis.	70	46.00	
Do	165	48.20	
Do	84	44.00	
Do	73	47.10	
Total	1,399		
1905.			
Riordan Paper Mills, Hawkesbury, Ontario.	253	39.00	
Hinckley Fiber Co., Hinckley, N. Y.	26	38.00	
Interlake Pulp and Paper Co., Appleton, Wis.	105	48.20	
Do	143	47.10	
Rhineland Paper Co., Rhineland, Wis.	247		35.00
Dells Paper and Pulp Co., Eau Claire, Wis.	248		34.00
Do	26		33.00
Do	78		35.00
Do	273	36.00	
Do	120	37.00	
Total	1,519		
1906.			
Riordan Paper Mills, Hawkesbury, Ontario.	108	40.00	
Do	60	44.00	
Do	296	39.00	
Dells Paper and Pulp Co., Eau Claire, Wis.	148		34.00
Do	31		39.00
Interlake Paper and Pulp Co., Appleton, Wis.	215	48.20	
Do	18	49.30	
Rhineland Paper Co., Rhineland, Wis.	103		35.00
Burgess Sulphite Fibre Co., Berlin, N. Y.	92	39.00	
Hinckley Fibre Co., Hinckley, N. Y.	193	40.00	
Do	285	38.00	
Do	72	41.00	
Total	1,621		

Flambeau Paper Company—Cost of sulphite bought—Continued.

	Tons.	Spruce.	Hemlock.
1907.			
Port Edwards Fibre Co., Port Edwards, Wis	9	<i>Per ton.</i>	<i>Per ton.</i>
Do	93		\$43.00
Riordan Paper Mills, Hawkesbury, Ontario	106	\$45.00	44.00
Do	94	48.00	
Munising Paper Co., Munising, Mich	21		39.00
Katahdin Paper Co., Claremont, N. H	14	50.00	
Imperial Paper Mills, Sturgeon Falls, Ontario	11	48.00	
Rhineland Paper Co., Rhineland, Wis	21		43.00
Do	172		42.00
Do	69		44.00
Burgess Sulphite Fibre Co., Berlin, N. H	257	42.00	
Do	185	47.00	
Dells Paper and Pulp Co., Eau Claire, Wis	60		40.00
Do	225		41.00
Do	24		45.00
Do	49		43.00
Hinckley Fibre Co., Hinckley, N. Y.	17	38.00	
Do	240	41.00	
Total	1,667		
1908.			
Rhineland Paper Co., Rhineland, Wis	20		41.00
Hinckley Fibre Co., Hinckley, N. Y	67	44.00	
Port Edwards Fibre Co., Port Edwards, Wis	11		43.00
Do	114		41.00
Dells Paper and Pulp Co., Eau Claire, Wis	71		43.00
Total	283		

RECAPITULATION.

Average cost delivered at mill for the amount of sulphite actually used by years.

	Spruce.	Hemlock.
	<i>Per ton.</i>	<i>Per ton.</i>
1903	\$37.35	\$37.99
1904	40.77	35.00
1905	40.13	34.49
1906	40.95	34.91
1907	43.84	41.99
1903 to date	44.00	41.76

DEAN & SHIBLEY,
BANKERS AND BROKERS,
New York, October 1, 1907.

FLAMBEAU PAPER COMPANY,
Park Falls, Wis.

DEAR SIR: Referring to your contract with us, dated December 1, 1906, we have to report that pursuant to said contract and others of like character preliminary reports have been received from appraisers and accountants as to the valuations of real and personal property and as to the earnings of 21 paper mills, of which 19 have ground-wood mills as a part of their plants and 7 have sulphite mills operated in connection with their plants; 1 ground-wood mill and 1 sulphite mill operated independently, all situated in the States of Wisconsin and Minnesota.

The aggregate daily capacity of the mills covered by these reports is approximately 831 tons of news-print, manila, fiber wrapping, and

kindred grades of paper; 469 tons of ground wood, and 283 tons of sulphite.

We have determined not to make payment in cash for the property referred to in your said contract, but (in case the plan of organization herewith presented becomes effective) to cause said property to be transferred to a corporation to be organized under the laws of Wisconsin, or such other State as counsel shall advise, to be known as the "Northwestern Paper Company," or by some other appropriate title, which corporation shall be organized for the purpose, among others, of conducting and continuing the manufacture and sale of paper, ground wood, and sulphite.

The proposed corporation is hereby referred to as the "new company," and the plan of organization and capitalization of said new company is as follows:

It is proposed that said company shall have an authorized capitalization of \$18,000,000, divided into shares of the par value of \$100 each, all of one class; and further, that said company shall authorize an issue of 5 per cent thirty-year sinking-fund mortgage bonds, limited to the aggregate amount of \$15,000,000, to be used only for the following purposes:

(a) To be issued in exchange for or to effect the retirement of existing mortgage liens upon the properties to be acquired.

(b) In part payment for such of the properties covered by the above-mentioned reports (exclusive of timber lands) as shall be brought within the plan or organization.

(c) To meet in whole or in part the cost of betterments or improvements to the properties so acquired and the purchase of additional properties.

(d) To be sold for cash to make payment of indebtedness assumed in the acquisition of properties and to provide working capital.

The mortgage securing said bonds will make provision for a sinking fund to be maintained by annual payments of \$100,000 to be made by the new company, beginning after three years from the date of said mortgage, and will authorize the redemption of bonds thereby secured, if necessary for the purposes of the sinking fund, at the price of 102½ and accrued interest.

The preliminary contracts which we have made contemplate the acquisition by the new company of about 73,000 acres of timber lands. It is proposed that all timber lands acquired by the new company shall be transferred to and held by a distinct corporation, hereinafter referred to as the "timber company," which shall be controlled by the new company through the ownership of capital stock, and that said timber company shall issue a series of sinking-fund bonds bearing interest at the rate of 5 per cent per annum, to be issued only for the acquisition of timber lands and to provide facilities for foresting such lands. The sinking fund for such bonds is to be based on stumpage and sale of lands.

In accordance with the terms of your said contract with us, in case said plan of organization become effective, we propose to make use of the following bonds and shares of stock in making payment to you of the purchase price payable by us thereunder, in addition to the assumption by the new company of liabilities reported by the accountants at the sum of \$——, viz, \$—— in said mortgage bonds

of the new company, \$—— in said mortgage bonds of the timber company, \$—— in stock of the new company.

Stock of the new company will be issued to you at par in lieu of the bonds of the timber company, if you so elect. The above amounts are subject to readjustment by reason of any change in the amount of liabilities to be assumed, or by reason of any variation appearing by the final inventory of quick assets.

The foregoing offer is based upon the appraised value and earning capacity of your property, ascertained in accordance with the terms of said contract. A like opportunity will be accorded to the owners of each of the other properties covered by the above-mentioned reports to participate in said plan of organization upon a corresponding basis.

The plan of organization is to become effective in case the offers of purchase made pursuant thereto are accepted by persons or corporations owning or controlling plants for the manufacture of some one or more of the species of merchandise above mentioned, located in the States of Minnesota and Wisconsin, and covered by the above-mentioned reports of appraisers and accountants, having an aggregate productive capacity of not less than 625 tons per day of news print, manila, fiber wrapping, and kindred grades of paper.

In the event that said plan of organization becomes effective, we offer to provide the new company with whatever cash may be required to pay liabilities assumed in the acquisition of properties and for working capital, not exceeding the aggregate amount of \$2,500,000, by purchasing the mortgage bonds of the new company at par and accrued interest.

Inasmuch as the bonds of industrial corporations, under existing conditions, are marketable only to a limited extent, we advise the formation of a syndicate, in accordance with the terms of the contract, for the disposition of such of the bonds of the new company as the holders may desire to sell, with a view to the protection of the value of said bonds against the effect of injudicious and premature sales and the ultimate realization of their full worth.

Subject to such arrangements for participation in said syndicate as you may make, the bonds and shares of stock deliverable to you in pursuance of the foregoing offer will be ready for delivery at the office of the Knickerbocker Trust Company, 66 Broadway, New York City, on January 2, 1908, at noon, upon receiving from you the deeds, assignments, bills of sale, and other instruments required by the terms of the contract. Drafts of the form of said deeds, assignments, bills of sale, and other instruments, together with the proposed proceedings of directors and stockholders in relation thereto, should be submitted to our counsel, Messrs. Davies, Stone & Auerbach, No. 34 Nassau street, New York City, on or before December 10, 1907.

Yours, respectfully,

DEAN & SHIBLEY.

This agreement between Wisconsin Pulp Wood Company, a Wisconsin corporation, hereinafter called first party, and the Flambeau Paper Company, a Wisconsin corporation, hereinafter called second party, witnesseth:

First. Said first party solicits and hereby accepts the position of purchasing agent for the second party for the purchase of pulp wood of all kinds required by second party, except such pulp wood as second party may secure and which

shall be floated the entire distance to its mill, and except such wood as shall be delivered to it by team, for and during the period of five (5) years from the date of this contract, and upon the conditions herein contained; and covenants and agrees with said second party that it will at all times, and in all respects, faithfully observe and comply with all the terms and conditions and restrictions of said purchasing agency as herein prescribed.

Said first party further covenants and agrees with said second party that it will procure such pulp wood on the most advantageous terms that it is able to procure the same, either by purchase of the pulp wood cut and delivered to it or by contract with jobbers to cut and furnish pulp wood to it, or by purchase of pulp wood stumpage, and the cutting and delivering of the same. Said first party further covenants and agrees with said second party that it will, as early in each season as practicable, furnish said second party an estimate of the cost of such pulp wood, making a separate and independent estimate of the cost of each kind of wood per cord f. o. b. each shipping point. Such cost shall include the just share of salaries of officers, office expenses, interest on borrowed money, and other necessary business expenses of said first party incident to the purchase of said pulp wood, taking into account the entire amount of wood sold by said first party during the current season.

Second. Said second party accepts such agency of said first party on said terms. Said second party further covenants and agrees to and with said first party that it (first party) shall be the sole purchasing agent of said second party for the purchase of all pulp wood it may require with the exception above stated. And that it (second party) will not during said period of five (5) years from date of this contract, itself purchase, or cause to be purchased, any pulp wood it may require, except as herein stated, in any manner whatever, except by and through said first party.

Said second party further covenants and agrees to pay to the first party the price, fixed and estimated, as hereinbefore stated as the cost of such pulp wood, for each cord delivered to it, f. o. b. cars at shipping point in one week from date of invoice. But such pulp wood shall be deemed, in law and equity, the property of and in the possession of the first party until payment therefor.

In consideration of the services of said first party as purchasing agent, said second party agrees to pay to first party such rate per cord for wood bought for it, as will, on the same basis applied to other pulp wood purchased and delivered by said first party during the year, amount to six thousand dollars (\$6,000) for its (first party's) commission for the year.

In case of nonpayment of the purchase price thereof, said first party shall have the right to enter upon any of the premises of the second party, or any third party, and take therefrom any of said pulp wood, the purchase price of which has not been paid, according to terms of this agreement, and sell same, upon ten days' written notice, at public auction to the highest bidder, and on such sale to apply the purchase price thereof, less the expense of seizure and sale, to the payment of said delinquent price, and in such case shall turn over to the second party the balance of such purchase price, if any there be.

Second party further agrees that on or before the first day of October of each year it will file with said first party a statement of the amount of pulp wood, and the kind of pulp wood, which it wishes to have purchased for it during the then coming season, under this contract, subject to a ten per cent (10%) increase or decrease before December first following, at the option of the purchaser. If the second party shall, during any year, wish to increase its order for pulp wood of any kind after December first, such order shall be received by the first party and shall be filled if practicable. But in case of shortage in any season's delivery, orders placed after December first shall not be filled until all orders placed before December first are filled. But if first party can not fill all orders of all its customers placed after December first it shall fill such orders pro rata.

First party shall not be liable for any damage on account of its failure through inability to supply the amount of pulp wood required by said second party, but it shall be the duty of said first party, and it so agrees with the second party, that it will in case of deficiency in supply of pulp wood, deliver pulp wood to each of its contractors pro rata according to their orders, that is to say, that it will deliver to each of its contractors such proportionate share of each kind of wood ordered by it, as the amount of that kind of wood ordered and delivered by it during said season, shall bear to the amount ordered by all of its contractors.

If at the end of the pulp wood season, the said first party shall find that it is obliged to receive pulp wood in excess of the amount it has orders for, the said second party agrees that it will take its pro rata share of such excess.

At the end of each pulp wood season, the cost of the pulp wood delivered under this contract shall be ascertained in the manner hereinbefore provided, account being then taken of all sums paid for trespass or failure of title to wood, and if on such final accounting it shall appear that such first party has received more on account of such wood than is herein provided, its pro rata share of the surplus shall be refunded to said second party. If, on the other hand, upon the taking of such account, the price charged shall prove to be insufficient to cover the cost and six thousand dollars, as herein provided, then said second party agrees to pay the first party the amount of such deficiency, to the end that said first party shall have for its services and use of its capital for all its principals a net sum of six thousand dollars after paying all expenses as above and all damages for trespass or failure of title.

In case of difference between the parties regarding the rights of either of them under this contract, either party may demand in writing of the other that such matter of difference, stating same, be submitted to arbitration. Within five (5) days of the giving of such notice each party shall select one arbitrator, and within five (5) days after notice to such arbitrators of their selection the two shall select a third arbitrator, or umpire, all to be disinterested parties. Within five (5) days after the selection of the third arbitrator or umpire the moving party shall make a statement, in writing, of its claim, and deliver a copy of the same to the opposite party and to the third arbitrator or umpire. Within five (5) days thereafter the opposite party shall make its statement, in writing, regarding such matter of difference, and deliver a copy of the same to the moving party and to the third arbitrator or umpire. Within five (5) days thereafter the moving party shall on two days' notice in writing to the opposite party make proof, if any it have, to make to sustain its claim to and before said arbitrators. Within five (5) days thereafter the opposite party shall upon two days' notice to the moving party, make its proofs, if any it have, regarding such claim, and within five (5) days thereafter both parties shall make such argument as they may have to make to the board of arbitrators. Thereafter, as soon as may be, but not later than ten (10) days, such arbitrators or a majority of them shall deliver to each party the conclusion of such board, in writing, signed by them or a majority of them, which conclusion shall bind both parties.

In witness whereof the parties hereto have executed this contract by their presidents and secretaries on this 22d day of October, 1904.

WISCONSIN PULP WOOD COMPANY,
By E. A. EDMONDS, *President*.

Countersigned:

By GEO. H. MEAD, *Secretary*.
FLAMBEAU PAPER COMPANY,
By WM. P. HARPER, *President*.

Countersigned:

By E. P. SHERRY, *Secretary*.

In presence of—

M. H. BALLOU.
F. J. SENSENBRENNER.
M. A. BATCHELOR.

CLOQUET, MINN., May 28, 1908.

HON. JAMES R. MANN,
Chairman, Washington, D. C.

DEAR SIR: I beg to hand you herewith, as requested by you when I was a witness before the Select Committee of the House of Representatives upon Paper and Pulp, true and correct copies of the original contracts made by the General Paper Company with the so-called "Scripps-McRae League" under date of May 9, 1905. These contracts are (1) the original "omnibus" contract, and (2)

the several contracts made between individual mill companies and individual publishers in connection with and pursuant to the omnibus contract.

In the omnibus contract Milton A. McRae and George G. Booth represented the "league."

It will be observed that the onerous provisions of the contract now in force (dated January 24, 1908, and copies of which I delivered to the committee) had their origin in the attached contracts of May 9, 1905, and that the news-print mills which were members of the General Paper Company were the residuary legatees of those unwelcome burdens.

Among those inheritances were:

1. The acceptance and assumption of performance of the omnibus contract by the individual mill companies, which bound themselves, jointly and severally, as coobligors thereunder with the General Paper Company. See paragraph (C) in attached omnibus agreement.

2. The obligation to supply, in addition to the papers named in the contract, any other publications started or acquired by the promoters of the "league" prior to August 10, 1910. See paragraph marked "(A)" of the omnibus agreement.

3. A joint liability to furnish a maximum of 125 tons of print paper per day. See paragraph (B) of the omnibus agreement.

4. The agreement to furnish paper for the unusual term of five years from August 10, 1905.

5. The provision as to arbitration and price for the second half of the term, running from February 10, 1908, to August 10, 1910. See paragraph (E) in the several contracts attached.

The saving clause (D) in the omnibus contract protected the mill companies as among themselves, and imposed upon each the duty of contributing to the requirements of paper under the Scripps-McRae contracts, in the proportion which the mill capacity of each company, at the time the contracts were entered into, bore to the total capacity of all of the mill companies.

Insistence by the Scripps-McRae League upon the advantages secured by the provisions above referred to compelled the mill companies to accept the unusual terms and conditions found in the contracts of January 24, 1908. Thus, paragraphs 1, 2, 3, 4, and 5 (on pages 3 to 5 of the omnibus contract of 1908) were required—

- (a) To provide for the disposition of the excess of the maximum obligation of 125 tons per day (paragraph (B) of original omnibus contract) over the current requirements under the contracts then outstanding with the various newspaper publishers.

- (b) To have some one in authority with whom the "league" could communicate—the General Paper Company and its executive officers having been enjoined from further action.

- (c) To distribute the requirements of the "league" among the various manufacturers so as to preserve their respective proportions of the obligation, as among themselves (paragraphs (A), (C), and (D) of the original omnibus contract).

- (d) To provide for the enforcement as among themselves of the rights of the several manufacturing companies.

The provisions of paragraphs 15 and 17 of the omnibus contract of 1908 were inserted to eliminate in toto the General Paper Company

in the future relations of the parties, and to annul effectually the contracts of 1905, leaving the rights of the parties after February 10, 1908, wholly dependent upon the new agreements.

The foregoing brief explanation will perhaps enable a reader understanding of the Scripps-McRae League contracts already submitted in evidence, and in connection with the contracts will effectually dispose of the charge appearing upon page 268, that the negotiations with the Scripps-McRae League were "in violation of the prohibition of the United States court," and constitute an unlawful combination of the manufacturers of news print who were former members of the General Paper Company.

Very respectfully, yours,

CLARENCE I. MCNAIR.

Memorandum of agreement between The General Paper Company, a corporation under the laws of Wisconsin, party of the first part, and Milton A. McRae, of Cincinnati, Ohio, party of the second part, and George G. Booth, of Detroit, Michigan, party of the third part, made this 9th day of May, 1905.

Whereas the party of the first part enters into contracts bearing even date herewith to furnish news print for a period of five (5) years to the Post Publishing Company, of Cincinnati, Ohio; The Scripps Publishing Company, of Cleveland, Ohio; Evening Chronicle Publishing Company, of St. Louis, Mo.; The Scripps-McRae Publishing Company, of Covington, Ky.; The Toledo Newspaper Company, of Toledo, Ohio; The Citizen's Publishing Company, of Columbus, Ohio; The World Publishing Company, of Kansas City, Mo.; the Des Moines News Company, of Des Moines, Iowa; The Daily News Publishing Company, of Omaha, Nebraska; The Daily News Publishing Company, of St. Paul, Minn.; The Daily News Company, of Minneapolis, Minn.; the Star Publishing Company, of Seattle, Washington; the Spokane Newspaper Company, of Spokane, Wash.; Record Publishing Company, of Los Angeles, Cal.; Daily News Publishing Company, of San Francisco, Cal.; Tacoma Times Publishing Company, of Tacoma, Wash.; W. H. Porterfield, publisher San Diegan Sun, of San Diego, Cal.; L. T. Atwood, agent for the Sacramento Star, of Sacramento, Cal.; The Evening News Association, of Detroit, Mich.; the Evening News, The Detroit Tribune and the Sunday News Tribune, The Evening Press Company, of Grand Rapids, Mich., and Bay City Times Company, of Bay City, Michigan; and,

Whereas the covenants of the respective parties in each of the foregoing contracts are part of the consideration for this contract;

Now, therefore, in consideration of the premises, one dollar in hand paid, and the covenants herein contained,

(A) It is mutually agreed between the parties that, in case the party of the second part, the party of the third part, or those associated with either of them as partner or stockholders in any of the foregoing companies, or any of such associates, acquire any other newspaper or newspapers, or legal control of such newspaper or the corporation owning the same, or starts any new newspapers between the date hereof and August 10th, 1910, the party of the first part will, on the order either of said party of the second or third part, supply news print equal to that contracted for in the foregoing contracts with the Post Publishing Company and others for such newspaper or newspapers during such part of said period as may be unexpired when such supply begins, and will enter into separate contracts therefor for each publication, similar in all respects to the contracts above recited between the party of the first part and various companies, reference being had in each case to the difference in location of the paper published and rates of freight thereto, which shall (B) be upon a corresponding basis; but the maximum amount of paper to be furnished by the party of the first part under all of the aforesaid contracts to furnish paper and under this contract combined shall not exceed in the aggregate one hundred and twenty-five (125) tons per day (Sundays excluded).

The rights of the second and third parties hereto to be based on the present consumption of the Scripps-Booth Michigan papers, as compared with all the other papers above mentioned—each being entitled to their proportion of said one hundred and twenty-five (125) tons per day pro rata on such basis, except

that the party of the third part shall be limited to papers in the State of Michigan.

It is further agreed that in case the supply of news print is required for any publication in addition to those for which contracts have already been made, the party of the second part or the party of the third part, respectively, shall give reasonable notice of the increased requirement to the party of the first part.

The parties of the second part and the third part agree that the said newspaper corporations entering into contracts of even date herewith with the party of the first part aforesaid shall use not less than fifty (50) tons per day on the average (excluding Sundays) so long as all of said contracts are in force.

This contract to inure to the successors, legal representatives, and assigns of the parties respectively.

The Kimberly & Clark Company, the Combined Locks Paper Company, The Consolidated Water Power and Paper Company, the John Edwards Manufacturing Company, Nekoosa Paper Company, Rhinelander Paper Company, Centralia Pulp and Water Power Company, Grand Rapids Pulp and Paper Company, Wisconsin River Paper and Pulp Company, Tomahawk Paper and Pulp Company, Dells Paper and Pulp Company, Hennepin Paper Company, Itasca Paper Company, Northwest Paper Company, Menasha Paper Company, and Flambeau Paper Company, accept this contract and agree to the full performance thereof, jointly and severally, with The General Paper Company.

In witness whereof the parties have hereunto affixed their signatures and seals on the day and year first above written.

(Signed)

(Signed)

(Signed)

GENERAL PAPER COMPANY,
By JNO. A. DAVIS, *Manager*.
MILTON A. McRAE.
GEORGE G. BOOTH.

(C) As provided therein and in consideration of the agreements contained in the foregoing contract on the part of Milton A. McRae and George G. Booth, and in further consideration of the benefits to accrue to the undersigned, as the manufacturers of paper to be supplied thereunder, the undersigned accept the foregoing contract, and jointly and severally agree with said Milton A. McRae and George R. Booth, and each of them, respectively, to perform all the obligations of the party of the first part as fully as if named as coobligors with The General Paper Company.

(27 tons.)

DELLS PAPER AND PULP Co.,

W. L. DAVIS, *President*.

(25 tons.)

GRAND RAPIDS PULP AND PAPER Co.,

C. F. KELLOGG, *Vice-President*.

(20 tons.)

ITASCA PAPER Co.,

By A. C. BOSSARD, *Treasurer and Manager*.

(20 tons.)

HENNEPIN PAPER Co.,

By B. F. NELSON, *President*.

(26 tons.)

TOMAHAWK PULP AND PAPER Co.,

A. M. PRIDE.

(60 tons.)

KIMBERLY & CLARK Co.,

By F. J. SENSENBRENNER, *Vice-President*.

(50 tons.)

COMBINED LOCKS PAPER Co.,

J. S. VAN NORTWICK, *Treasurer*.

(55 tons.)

CONSOLIDATED WATER POWER AND PAPER Co.,

GEO. W. MEAD, *Secretary*.

(40 tons.)

JOHN EDWARDS MFG. Co.,

F. GARRISON, *Secretary*.

(23 tons.)

CENTRALIA PULP AND WATER POWER Co.,

F. GARRISON, *President*.

(40 tons.)

RHINELANDER PAPER Co.,

By E. A. EDMONDS, *Manager*.

(18 tons.)

FLAMBEAU PAPER COMPANY,

By E. P. SHERRY, *Secretary*.

(40 tons.)

MENASHA PAPER COMPANY,

By M. H. BAUM.

(40 tons.)	WISCONSIN RIVER PAPER AND PULP COMPANY, C. A. BABCOCK, <i>Secretary</i> .
(40 tons.)	THE NEKOOSA PAPER COMPANY, T. E. NASH, <i>President</i> .
(20 tons.)	NORTHWEST PAPER COMPANY, C. I. MCNAB, <i>General Manager</i> .

(D) We accept the foregoing contract with the signatures now affixed thereto, it being understood that the contract is now operative as between the parties who have signed. If all the other companies named therein sign the same, we agree that the liability of each signer other than the General Paper Company shall be limited to its pro rata based on the proportion its present news-print capacity bears to the total present news-print capacity of all the signers, and provided that all of the said signers assent to this memorandum and state their present news-print capacity.

Chicago, May 12, 1905.

M. A. McRAE,
By J. C. HARPER.
GEORGE G. BOOTH,
By LEO M. BUTZEL.

Memorandum of agreement between the General Paper Company, a corporation under the laws of Wisconsin, party of the first part, and ———, a corporation under the laws of ———, publisher of the ———, party of the second part, made this 9th day of May, 1905.

I. The party of the first part, in consideration of one dollar, the receipt of which is hereby acknowledged, and the covenants herein contained, agrees to supply for the period beginning May 1st, 1905, and ending August 10th, 1910, paper known as news print sufficient for the publication of the ———.

II. Such news print shall be made at the mills of one or more of the guarantors of this agreement, and such news print shall be of a clear bright color, of a good surface, free from dust, opaque at the standard weight, being made, finished, and put up in accordance with the practices in the best news-print mills in the United States, and shall under any circumstances average and be equal in quality, character, and finish to that now furnished to and used by the Chicago Record-Herald and the Chicago Daily News on their regular issues. The weight to be on a basis of thirty-two (32) pounds per 500 sheets 24x36 inches. Production per 1,000 sheets on the above basis is guaranteed, exclusive of wrappers, and in case it overruns, the excess to be deducted from the bill, but the weight may, at the option of the party of the first part, be increased.

III. The party of the second part agrees to take from the party of the first part the full supply of news print of such grade consumed by said newspaper, and to pay therefor at the rate of one dollar and ninety-five cents (\$1.95) per hundred pounds, including wrappers, for a period beginning May 1st, 1905, and ending February 9th, 1908. Pink or green paper is to be furnished at fifteen (15) cents per hundred pounds advance. All payments to be made on the 10th of each month for paper delivered at the office of publication during the previous month in Chicago or New York exchange.

(E) IV. The price for the two and one-half years beginning February 10th, 1908, shall be agreed upon by the parties of the first and second parts six months prior to that date; and in the event that they are unable to agree, each party shall appoint a disinterested person as arbitrator, and the written decision of any two of the arbitrators shall be final and binding upon both parties, and such arbitrators, or the majority thereof, shall also determine in the same way by whom the expenses of such arbitration shall be borne; provided, that the party of the second part shall not pay for paper furnished during the last half of this contract more at any time than is paid by the majority of the five largest consumers of news print in the United States under their contracts for news print, quality of paper and freight rates considered. Pending the determination of said arbitrators, said first party shall continue to deliver at the price named herein for the first period of this contract; the accounts covering the period between February 10th, 1908, and the date of the award between the parties hereto to be subsequently adjusted upon the basis of the price ultimately fixed by said arbitration and within ten days thereafter.

V. The party of the first part agrees to carry news print in storage at the point of delivery for two weeks' supply, of rolls of various widths in ratio to the average consumption required, and to deliver the same as called for on the sidewalk at the press room.

VI. In case of an unusual or extraordinary increase of demand for news print over and above the quantity being supplied at the time under the contract, reasonable notice thereof must be given party of the first part by party of the second part.

VII. In case the party of the first part shall be unable at any time to furnish the paper required by this contract in consequence of fire, strikes, flood, war, or causes beyond the control of the manufacturer, the party of the first part shall give prompt notice to the purchaser, and the purchaser, upon receiving such notice, shall obtain the paper required elsewhere, and the party of the first part shall be liable only for the difference between the market price and the contract price for paper similar in grade to that contracted for during the period in which the manufacturer is prevented from furnishing such paper by the causes hereinbefore mentioned.

If the fire, strike, flood, war, or other cause beyond control, which hinders the performance of the contract, occur only at the mill supplying paper under this contract, and it is not a general condition of the trade, then the party of the second part may, unless otherwise supplied by party of the first part, obtain the paper elsewhere at the lowest price at which it can secure a sufficient supply to meet its publication requirements, and the party of the first part shall be bound to reimburse the party of the second part the difference between the price so paid and the contract price, for the quantity so procured.

VIII. The party of the first part agrees to purchase white waste from the purchaser at seventy-five cents (75¢) per hundred pounds, as it shall come from paper delivered under this contract and at the point of delivery, if properly packed by the purchaser, upon receipt of bill of lading by party of the first part, but no allowance shall be made for paper remaining on the cores. But paper shall be so made and wound on spools as to make it possible to use all of it.

IX. No claim for damaged paper shall be entertained by the party of the first part unless the purchaser states in his receipt for the goods that the same are damaged, and immediately advises the party of the first part to that effect. All such damaged paper shall be kept for disposal by the party of the first part.

X. The ——— Paper Company accepts this contract and agrees to the full performance thereof jointly and severally with the General Paper Company.

In witness whereof the parties have hereunto affixed their signatures and seals on the day first above mentioned.

As provided therein, and in consideration of the agreements contained in the foregoing contract on the part of the ——— Publishing Company, and in further consideration of the benefits to accrue to the undersigned, as the manufacturers of the paper to be supplied thereunder, the undersigned accept the foregoing contract, and jointly and severally agree with the ——— Publishing Company to perform all the obligations of the party of the first part as fully as if named as coobligors with the General Paper Company.

DEPARTMENT OF COMMERCE AND LABOR,
BUREAU OF STATISTICS,
Washington, May 29, 1908.

HON. JAMES R. MANN,
*Chairman Pulp and Paper Investigation Committee,
House of Representatives, Washington, D. C.*

SIR: Referring to our correspondence with respect to price of news-print paper in foreign countries, etc., I inclose to you herewith copies of letter from the chief clerk of the Department of State and copies of communications transmitted by him from the American consuls-

general at Ottawa, Canada, and Berlin, Germany, giving further information with respect to the matter in question.

Very truly yours,

J. N. WHITNEY,
Acting Chief of Bureau.

DEPARTMENT OF STATE,
Washington, May 27, 1908.

The CHIEF CLERK,
Department of Commerce and Labor.

SIR: By direction of the Secretary of State, referring to previous correspondence on the subject of price of news-print paper in foreign countries, I have to inclose herewith copies of dispatches from the American consuls-general at Ottawa and Berlin, respectively, both dated the 13th instant, supplementing their telegrams previously transmitted to you.

I am, sir, your obedient servant,

W. F. CARR, *Chief Clerk.*

AMERICAN CONSULATE-GENERAL,
Ottawa, Canada, May 13, 1908.

ASSISTANT SECRETARY OF STATE, *Washington.*

SIR: I regret that I have not thus far been able to furnish market prices of news-print paper for the six years last past.

One of the leading mills of Canada has promised me this statement and has its bookkeepers at work preparing it. The statement will probably be ready to-night, and as soon as received I shall telegraph it to the Department.

No shipments of news-print paper intended for the United States have been certified at this consulate-general during the period named prior to 1907.

The E. B. Eddy Company, at Hull, which has been in operation for some years, does not sell its product in the United States.

The J. R. Booth Company, which began operation in the early part of 1907, sells its output in the United States, and its shipments are certified at this office. At the beginning of the year 1907 this company had no contracts on hand, and in order to dispose of its output it probably sold at a price somewhat under what might be considered fair market value.

The manager of this company states that he considers that \$1.70 was about the fair market price in the early part of 1907, but that he was able to gradually advance the price during the year until in the autumn he obtained some large contracts at \$1.90 f. o. b. Ottawa.

During the present year comparatively few sales have been made. The price, however, has thus far been held at \$1.90.

I have the honor to be, sir, your obedient servant,

JOHN G. FOSTER, *Consul-General.*

AMERICAN CONSULATE-GENERAL,
Berlin, Germany, May 13, 1908.

ASSISTANT SECRETARY OF STATE, *Washington.*

SIR: I have the honor to acknowledge the receipt yesterday (May 12) of Department's cablegram reading:

Telegraph market price in Germany news-print paper now and annually for six years past. Carr.

And to confirm my reply to-day, as follows:

SECRETARY OF STATE, *Washington.*

Averaged price received from all sales in Germany by news-print paper manufacturers, delivery included, nineteen hundred two, 22.95 marks per one hundred kilograms; nineteen three, 21.50; nineteen four, 21.35; nineteen five, 22; nineteen six, 21.90; nineteen seven, 21.40; average nineteen eight competently estimated, 21.75. Berlin daily states its contracts for parallel years were 20.50, 20.50, 20.50, 21.25, 21.50, 21, 21.50. Cauldwell.

(22.95 marks per 100 kilos = \$0.024786 per pound; 22 marks per 100 kilos = \$0.02376 per pound; 21.90 marks per 100 kilos = \$0.023652; 21.75 marks per 100 kilos = \$0.02349 per pound; 21.50 marks per 100 kilos = \$0.02322 per pound; 21.40 marks per 100 kilos = \$0.023112 per pound; 21.35 marks per 100 kilos = \$0.023058 per pound; 21.25 marks per 100 kilos = \$0.02295 per pound; 21 marks per 100 kilos = \$0.02268 per pound; 20.50 marks per 100 kilos = \$0.02204 per pound.)

The weights and prices were not changed to equivalents in the United States because of the inconvenience that would result from telegraphing the converted values.

The prices cabled are the average of all sales, both high and low, made in Germany during the years mentioned by the News-Print Paper Manufacturers' Association, which controls the German market. I was permitted to copy these rates from the private records of the association's directorate under pledge of confidence.

While the prices given may not come under the strict interpretation of the term "market value," they represent the marketable value in Germany of the entire output of the association for the years mentioned. Because they were authoritative, and because they were definite, I considered these figures of greater value to the Department than those based on sales in open market, where prices varied according to the individual's capacity for bargain.

The smaller papers not in the combination pay a higher rate than the average quoted. I encountered prices of 23 marks and over per 100 kilos paid by papers which lacked facilities for buying to advantage. These sales represent so small a part of the total as not to reflect accurately the state of the German market during the past six years.

I trust my course in this matter has the approval of the Department.

The prices quoted in my cablegram were the average for sales in Germany only. It is interesting to note that export sales were made at prices lower than those for Germany.

The association's total sales for the years mentioned, including export sales, were made at the following averages: 1902, 22.65 marks per 100 kilos = \$0.024462 per pound; 1903, 21.20 marks per 100 kilos = \$0.022896 per pound; 1904, 21.20 marks per 100 kilos = \$0.022896 per pound; 1905, 21.90 marks per 100 kilos = \$0.023652 per

pound; 1906, 21.80 marks per 100 kilos = \$0.023544 per pound; 1907, 21.20 marks per 100 kilos = \$0.022896 per pound.

These figures were given in confidence, and the publication of my source of information would cause serious embarrassment to the association's officials in Germany.

I have the honor to be, sir, your obedient servant,

FREDERIC W. CAULDWELL,
Vice and Deputy Consul-General.

W. H. PARSONS & Co.,
PAPER MANUFACTURERS,
New York, May 29, 1908.

HON. JAMES R. MANN,
*Chairman Select Committee of House of Representatives,
Pulp and Paper Investigation, Washington, D. C.*

MY DEAR MR. MANN: On reading over the report of Mr. Chester W. Lyman's testimony, as shown on pages 1333, 1334, and 1335 of No. 19, I notice that Mr. Miller, of your committee, questioned Mr. Lyman respecting an address which I delivered on February 6 of this year at the time of the annual banquet of the American Paper and Pulp Association. Mr. Miller seems to have been under the impression that my address was delivered at the business meeting of the association, which is not the fact. In making the annual report of the association the compliment was paid me of reprinting my evening address at the banquet with the other papers that were read at the business meeting held in the forenoon of February 6. If you will take the trouble to read my address you will perceive that it is a discussion of a number of questions of general interest, and has no more special reference to the paper industry than it has to any other.

Very truly, yours,

D. S. COWLES.

NEW YORK AND PENNSYLVANIA COMPANY,
PAPER AND CHEMICAL FIBER,
New York, May 29, 1908.

HON. JAMES R. MANN,
House of Representatives, Washington, D. C.

SIR: I am sending you under separate cover report on the Pollution of Lake Champlain, by Marshall O. Leighton. That part which refers to our Champlain mill begins on page 21 and closes on page 48. My company has no connection with any other mill referred to in the report. Quoting from the last paragraph on page 47, Mr. Leighton states:

The evidence given on the previous pages is, in the opinion of the author, unquestionably sufficient to support the opinion that the pulp mill at Willsboro has not the slightest harmful effect upon the lake when it is operated in connection with the sedimentation bed.

I call your attention to an error I made in stating that Mr. M. O. Leighton was from the Agricultural Department; you will note at the time he made the report he was connected with the Department

of the Interior, United States Geological Survey. This report not only covers our method of taking care of wastes at Willsboro, but also gives a very good description of the soda process, and may be of interest to you on that account.

Respectfully, yours,

A. G. PANUFY,
General Manager.

ST. REGIS PAPER COMPANY,
Watertown, N. Y., May 30, 1908.

HON. JAMES R. MANN,
House of Representatives, Washington, D. C.

DEAR MR. MANN: In letter which I wrote you suggesting that the committee obtain costs from the Laurentide Pulp and Paper Company I find I made error in suggesting that the freight charge from Grand Mere to New York City is greater than from Watertown to New York. I find the rate of freight from Grand Mere, and also from Ottawa, on paper in carloads is 15 cents per hundred, the same as it has been from here. I referred particularly to the large eastern markets. On the other hand, some of my friends, whose opinions differ from mine to some extent, fail to see my point, although I think it must have appealed to you.

If I had known before that rate on paper from Grand Mere to New York was 15 cents I would have made a much more vigorous protest to the New York Central Railroad during the past few years than I did make. I have secured a reduction from this territory of 2 cents a hundred, making the rate 13 cents per hundred in the future, and while I had considerable help nevertheless I fought this battle, so far as this particular rate is concerned, singlehanded. Now, if the railroad people reduce the rate from Grand Mere to New York to 13 cents I shall make a pretty vigorous and, I think, winning fight for a rate on pulp wood from Grand Mere at less than 10 cents per hundred. So, as you will observe, in making the statement I did I did not care which way the fact developed. Either way, it made a satisfactory point.

I have rather openly declared for reciprocal arrangements with Canada, and if it is reciprocal in certain ways it must be made so with others, and I do not doubt but that the railroad people will join with us. Of course just how everybody would be affected you can judge now better than I. The sulphite industry is in a deplorable condition, and it should have some sort of relief, but as to ground wood and print paper reciprocal arrangements will be sufficient.

Yours, very truly,

G. C. SHERMAN.

ST. REGIS PAPER COMPANY,
Watertown, N. Y., June 1, 1908.

HON. JAMES R. MANN,
Chairman, House of Representatives, Washington, D. C.

DEAR MR. MANN: I do not believe it is good judgment to deceive when it is easy to ascertain the truth, if I have no other principle.

I was ready to give up when I was informed positively that the rate of freight on news paper in carloads to New York from Grand

Mere was 15 cents per hundred. To-day I have been in conference with some of the freight experts of the New York Central Railroad and they assure me that I was right, excepting that a rate of 15 cents applies to shipments sent through the United States in bond for export. They are not able to inform me exactly what the rate from Grand Mere to New York is at the moment, for delivery and consumption in New York, but they think it is 19 cents.

I am somewhat pleased over learning this, because being assured I am immune from punishment, aside from perjury, I would be sorry to lose my immunity on account of a loose statement.

Yours, respectfully,

G. C. SHERMAN, *Treasurer.*

INTERNATIONAL PAPER COMPANY,
New York, June 1, 1908.

HON. JAMES R. MANN,

*Chairman Select Committee on Paper and Pulp Investigation,
House of Representatives, Washington, D. C.*

DEAR SIR: I think an erroneous impression was gained by some of your committee as to the future possibilities of the development of the paper industry in this country, particularly the manufacture of news-print paper, which requires the use of water power.

You will find that some paper manufacturers who have not looked very deeply into the subject have an impression that there are no water powers remaining which are suitable for use in making ground wood. I consider that this is very erroneous. I have heard the same talk for at least fifteen years, and yet the industry has continued to grow at a rapid rate, the output of news-print paper certainly having doubled in that time.

I know of one or more undeveloped water powers on every important river in Maine and New York State, and some one testified at the hearing that the water-power resources of Wisconsin were not more than half developed. It is a fact also that there are a number of undeveloped powers in Minnesota; one on the Rainy River, for example, it is said can afford power for a mill of 500 tons capacity, and such a mill is contemplated. This and other projected mills will take care of the growth in the consumption of news-print paper for some years to come, and make it quite unnecessary to have paper brought in from Canada or Scandinavia. There are numerous other powers scattered in various States.

In addition to the undeveloped powers is the possibility of increasing the capacity of existing plants by means of water storage. There are few rivers on which news-paper mills are situated but what can have their capacity for producing pulp increased from 25 per cent to 50 per cent, so that so far as water power is concerned, I believe it will be many years before the industry will outgrow the resources of the country.

The scarcity of wood is also, in my opinion, very much exaggerated. There are some sections of Maine which are not contributing anything at present to the pulp-wood supply, but will come into the

field when economic conditions warrant. There is a large section of Minnesota which is as yet practically untouched. Besides these facts, the use of other kind of woods than spruce is increasing, as shown by the annual statements of the Forestry Service. On the Pacific coast there are vast tracts of wood suitable for pulp making, and I believe it is only a question of time when some of the Southern States will find that they have the resources, both in wood and power, for making a great output of paper, and that mills will grow up if the industry is protected.

The last publication of the Forestry Service shows that the consumption of pulp wood for 1907 in the United States exceeded that of 1906 by 300,000 cords. This certainly gives no indication of any inability on the part of the paper industry in this country to still further develop.

Very truly, yours,

CHESTER W. LYMAN,
Assistant to President.

INTERNATIONAL PAPER COMPANY,
New York, June 1, 1908.

HON. JAMES R. MANN,
*Chairman Select Committee on Paper and Pulp Investigation,
House of Representatives, Washington, D. C.*

DEAR SIR: As I judge from your report that you intend to look further into the Canadian pulp-wood situation, I think you may be interested in the inclosed copy of a letter which was sent out by the paper association to a large number of daily newspapers last September in order that they might not heedlessly advocate some action by Congress which would not take into consideration the possibility of adverse action by Canada. At the time this letter was sent out I believe that neither the newspapers nor the American public had any knowledge of this subject.

I think you will agree with me that this letter should not be published, on account of its disclosing to Canadians facts which are not generally known to them.

I take this opportunity of saying that we have been studying the pulp-wood question for a number of years and shall be glad to give your committee all the information in our possession.

Very truly, yours,

CHESTER W. LYMAN,
Assistant to President.

AMERICAN PAPER AND PULP ASSOCIATION,
New York, September 13, 1907.

TO THE EDITOR:

I beg to call your attention to the inclosed editorial in the New York Commercial relating to the persistent agitation in Canada, at present particularly aggressive, in favor of either the absolute prohibition of the export of pulp wood from that country into the United States or the imposition of a high export duty. For the furtherance of this plan its advocates are now conducting a vigorous campaign through the medium of the Canadian press.

This matter seriously affects the paper industry, and also concerns the prosperity of the printing and publishing interests of the United States. More than \$200,000,000 worth of paper is now annually manufactured and used in the United States, and we believe that the press and public can not look with indifference upon any movement which would be unfavorable to the welfare of our industry. For this reason we venture to lay before you confidentially the situation referred to in the inclosed editorial, in the hope that you will lend the influence of your columns to thwart this hostile Canadian scheme.

As to our need of Canadian wood, it would be extremely injudicious to make any public admission thereof, and we therefore ask that you treat what we say on this point strictly confidential. Suffice it to say that we are desirous above all things of keeping open this source of supply for such portion of our pulp wood as it is practicable and desirable to obtain from Canada, both in the interest of conserving our own forest and of securing our raw material at the lowest possible cost. There is no import duty on pulp wood coming into the United States. Accordingly our demand for Canadian pulp wood at present is determined largely by the geographical position of our various mills and the relative cost of carrying charges thereto from different pulp-wood producing localities both in Canada and the United States. If the capital and labor necessary to produce paper to meet the constantly and rapidly increasing demand in this country are to be furnished and employed here instead of in Canada, this question will become of more and more importance.

There is no exceptional stress of conditions in Canada that would warrant a deliberate attempt to ruin an industry in a friendly country in order to build it up at home. In one breath the Canadians claim to have unlimited supplies of spruce timber-land suitable for pulp wood and appeal to the public to espouse the cause of building up home industries so as to use this material, and so as to supply the United States and the world at large with paper; and in the next breath they claim that the United States paper makers must be kept from depleting Canadian forests. As a matter of fact, the preservation of Canada's forests is a specious argument, as the effect thereon would be the same whether the pulp wood were manufactured into paper in the United States or in Canada, provided the quantity of paper remained the same. But if, as is likely, having shut us off from getting their wood, their production of paper failed to increase at a sufficient rate to offset the decrease in production in the United States and to meet our increased demand, a paper famine in the United States would inevitably result. The instigators of this movement, viz, Canadian paper makers, while making a false plea on broad patriotic grounds, are really actuated by selfish motives and hope to decrease the demand for wood in Canada so as to buy it more cheaply themselves, at the same time increasing the cost of wood in the United States, and thus to increase their profit in competition with us. Under these conditions, the removal of the United States' duty on paper would be only a play into their hands and would but add to the profit of the Canadian manufacturers without inuring to the benefit of consumers of paper here.

We maintain that any interference by Canada with the export of pulp wood would be an invidious act, inconsistent with the general policy of nations as well as of Canada itself, viz, the free exporta-

tion of all products, whether raw or manufactured. Many of us have invested large amounts in Canada in fees of timber-lands and licenses from various provincial governments, relying upon Canadian laws and conditions existing at the time. It would be practically confiscation for Canada largely to destroy the values of these properties by preventing the removal of the product from the country.

Canada is exporting many millions of dollars' worth of other raw materials and there would be no justice in singling out pulp wood to place a restriction upon its exportation. The only reason assignable is that the Canadians look with covetous eyes upon the industrial growth of the United States and think that in paper manufacturing they have found a vulnerable point at which to attack us, by reason of what they style our "dependence" upon them for the raw material.

The United States in 1906 exported over \$500,000,000 worth of raw material and \$226,000,000 worth of partly manufactured goods. The United States is also exporting machinery to all parts of the globe to manufacture goods which compete with us in various markets. In fact, practically all the paper machinery and pulp machinery used in Canada is manufactured in the United States. In addition to this, Canada is largely dependent upon the United States for its supply of coal, iron, steel, and many other products both raw and manufactured.

It is thus seen that the proposed interference with the trade in pulp wood is inconsistent with Canada's own policy as well as with that of nations generally. If this principle were carried to its logical conclusion by both Canada and this country, it would result in the former's ruin.

Such a step as is advocated, if taken, would involve discriminating legislation which it would seem should not be viewed with complacency by the United States. The Province of Ontario has already prohibited the export of pulp wood and logs cut from Crown lands. The Province of Quebec charges a greater stumpage if the pulp wood cut from Crown lands is exported, and the general tariff of Canada grants a preference of 33 per cent on all imports in favor of England as against the United States and other countries. It would seem that discrimination had already gone as far as we should allow without protest.

The Canadians have so far been deterred from taking a more drastic course principally through fear of disastrous consequences to themselves by reason of the operation of the wise countervailing clause of our tariff, which would automatically raise the duties on Canadian pulp and paper coming into this country, to offset any duty which might be imposed on pulp wood; but this provision they are trying to find some way to avoid, and it is defective in that it would not, in fact, meet the situation if exports of pulp wood were entirely prohibited. They hesitate to resort to this extreme expedient through fear of some kind of retaliation by the United States, and we believe that a "quietus" could be put upon this agitation if the press of this country would give emphatic expression to the disfavor with which such an attack on one of our industries would be regarded by our people, and would intimate that it would be unwise for Canada to take a step which might provoke retaliatory measures and interfere at least with the commercial comity between the two countries.

Our object in addressing you is both to ask your support at this time in such manner as may seem to you to be most judicious, and also as a precautionary step to inform our leading newspapers as to the bearing of this matter, so that should it become a question of public policy in connection with reciprocity negotiations, tariff legislation, or otherwise they may be in possession of the principal facts. We shall be glad to furnish additional data on application.

Very truly, yours,

D. S. COWLES, *President.*

MANUFACTURERS' ASSOCIATION OF NEW YORK,
Brooklyn, N. Y., June 9, 1908.

HON. JAMES R. MANN,

*Chairman Select Committee on Pulp and
Paper Investigation, Washington, D. C.*

DEAR SIR: I have read with care the report of Select Committee on Pulp and Paper Investigation.

There is one feature which has a most important bearing upon this subject which has, I believe, been overlooked, and that is the great waste of paper and coincident waste of our forests due to the 1 cent per pound rate on publications entered in the post-office as second-class matter.

This low rate puts a premium upon large circulation and the forcing of circulation by methods not in harmony with the spirit of the law, and purely from a commercial standpoint has led to grave abuses and enormous national waste, which should be corrected, and I think that your committee should show the relation of this waste to the large and unnatural demand for paper and the consequent high prices.

This investigation might easily show that a law passed to encourage the dissemination of literature at a time when paper and printing cost ten times more than it costs to-day has resulted in a scramble by publishers to monopolize the field of advertising, and in doing so that they have also monopolized 90 per cent of the postal facilities without contributing anything like a reasonable share of the postal revenue.

This investigation might legitimately show that the proportion of 600,000,000 pounds of matter of the second class, which is annually carried in the mails at 1 cent per pound, is very largely waste, pure and simple, and that it serves no useful purpose.

This investigation should show that 1,000,000 pounds of news paper requires the destruction of 3,000,000 pounds of forest, and that there is wasted every day in the year that amount of forest, due entirely to this 1-cent-per-pound postal rate.

While it is no doubt the work of other committees of the House to investigate the needs of postal system in relation to its usefulness to the people and the value of an equitable postal rate law, nevertheless this committee has the opportunity to show that a great national waste is responsible for an abnormal demand for paper, which advances in an unnatural way the price and places a burden upon many who are unable to bear it.

The value of investigation and report by the Census Bureau upon this subject would be inestimable, for while our postal system is mak-

ing some headway, it has been made so clear in the reports of Postmasters-General that the Department is severely handicapped, that it is due to commerce and industry that these faults should be corrected and our postal system placed upon a basis which will provide the best communication possible.

If your committee would show clearly, as it might, that the 1-cent rate for publications puts a premium upon the destruction of forests, and that there is a great national waste which is encouraged abnormally by present postal laws, Congress might be induced to enact an equitable postal rate law.

Respectfully, yours,

RICHARD W. BAINBRIDGE,
Postal Chairman.

INTERNATIONAL PAPER COMPANY,
New York, June 10, 1908.

Hon. JAMES R. MANN,
*Chairman Select Committee on
Paper and Pulp Investigation,
House of Representatives, Washington, D. C.*

DEAR SIR: On page 1203 of the paper and pulp investigation hearings I make this statement:

But Mr. Norris and Mr. Ridder and Mr. Seltz, and one or two others, at different times have worked together to foment discontent among the publishers of this country.

Mr. Sims thereupon asks me if I refer to these gentlemen in their individual capacity, to which I reply affirmatively, saying that as I look upon it they are looking out for their own individual benefit. Mr. Sims states that Mr. Norris distinctly disclaimed representing the New York Times, etc.

Mr. Herman Ridder, under date of May 20, 1908, has sent out to a select list of publishers a letter which I here quote:

DEAR SIR: It occurs to me that substantial steps toward protecting newspaper interests in the matter of paper supply and price could be obtained at this time, if a group of the larger newspapers should arrange to carry on that work in their own interest.

Mr. John Norris has signified his willingness to serve such a group of newspapers and to devote all his energies and time to the work if an adequate salary could be assured to him for a period of two years. I am confident I can adjust that matter to the advantage of all concerned. Mr. Ochs, of the New York Times, and other publishers have already indicated their willingness to participate.

The plan I have in mind contemplates a payment by each subscriber of 10 cents per ton of paper consumed with a minimum of \$1,000 per annum toward a fund which shall insure two years' work. If the total subscriptions exceed the expenditures, as I anticipate they may, a return will be made pro rata. I will act as treasurer in your interests. It will be understood that your obligation or liability will not in any way exceed the amount of your subscription. This plan does not contemplate any interference with your perfect freedom in buying paper, but rather the creation of conditions which shall be helpful to you in buying.

May I rely upon your cooperation, and if so, for what sum?

Yours, faithfully,

HERMAN RIDDER.

This letter is not sent out as president of the American Newspaper Publishers' Association, but by Mr. Ridder individually. It is evident that in so far as this letter indicates, his solicitude for the publishers does not extend beyond a small circle, who would constitute strong allies for the accomplishment of his own object.

The letter also seems to discredit Mr. Norris's statement, according to Mr. Sims, that he did not represent the New York Times, as it shows that at present, at any rate, Mr. Ochs is behind Mr. Norris in his efforts to create conditions which will be helpful to the New York Times in buying its paper.

I would be glad to have this letter go in the record.

Very truly, yours,

CHESTER W. LYMAN,
Assistant to President.

ST. GEORGE PULP AND PAPER COMPANY,
Norwalk, Conn., June 10, 1908.

HON. JAMES R. MANN,
*Chairman Select Committee on
Pulp and Paper Investigation,
House of Representatives, Washington, D. C.*

DEAR SIR: Inclosed please find our report as per your request of May 7. To compute these figures in the manner asked for, it has been necessary for us to separate to some extent items which have been lumped in our reports or taken collectively, but we have endeavored to have them accurate, and the details agree with our figures, so that we are very confident we are correct.

In considering our mill, kindly bear in mind that our situation is a little unique, in that while we are manufacturers of pulp and purchasers of pulp wood at times, our operations in pulp and pulp wood are all conducted on the Canadian side in the Province of New Brunswick.

I am informed that your committee intends to visit some of the mills in the United States and Canada, and it affords me pleasure to invite you to include our mill in your programme.

I should like to have the pleasure of giving any and all information in my power and would undertake to accompany you to our New Brunswick mill if you wished, in order to give you a better understanding of matters at that end of the line.

Wishing you every success in your endeavors to get at the true facts, I remain

Yours, truly,

ST. GEORGE PULP AND PAPER COMPANY,
E. G. MURPHY, *Vice-President.*

DEPARTMENT OF STATE,
Washington, June 11, 1908.

HON. JAMES R. MANN,
*Chairman Select Committee on Pulp and Paper Investigation,
House of Representatives.*

SIR: I have the honor to inclose copy of a dispatch from the consul at Sheffield, England, transmitting a communication from a large paper manufacturer in his district, in regard to the amount and prices of paper shipped yearly from the United States to Sheffield.

I have the honor to be, sir,

Your obedient servant,

ELIHU ROOT.

AMERICAN CONSULATE,
Sheffield, England, May 26, 1908.

The ASSISTANT SECRETARY OF STATE,
Washington, D. C.

SIR: I have the honor to transmit herewith copy of a letter I recently received, which speaks for itself.

The writer of this letter, Mr. Joseph Dixon, is the proprietor of large paper mills at Oughtibridge, near this city, and at Grimsby; he is known to me personally as a thoroughly reliable man, and upon receipt of the letter I had an interview with the writer, and pointed out that I could not use the letter as he suggested unless the ban of privacy was removed, and asked him if he was willing to be quoted in the matter. In reply he said he was willing to stand by what he had written. I then asked if the statements made by him were susceptible of proof; he said the yearly quantity stated was based upon his knowledge of the requirements of the purchasers here; the rail and ocean freights can be readily verified. The price per pound, Mr. Dixon says, was furnished him by the proprietors of two newspapers here, who are both customers of his for a part of their paper supply at a somewhat higher price than they are paying the American paper makers, but whether they would, if called upon, produce bills to prove his statement he was not prepared to say.

In view of the conflicting interests involved, I forward the letter for such action as the circumstances may seem to warrant.

I have the honor to be, sir,

Your obedient servant,

CHARLES N. DANIELS, *Consul*.

[Peter Dixon & Son, papermakers. West Marsh Paper Works, Grimsby. Head office, Spring Grove Mills.]

OUGHTIBRIDGE, NEAR SHEFFIELD, May 19, 1908.

DEAR MR. DANIELS: An inquiry is now being held in Washington on paper. The Government there is trying to find out if the American paper makers are selling cheaper to foreigners than to United States publishers. It might be useful to know if you were to tell your Government that 3,000 tons or more United States newspaper has come into Sheffield yearly for two or three years at 1½d. [2½ cents] per pound, less 14 per cent, equal to £10 [\$48.67] per ton [2,240] net in Sheffield. The carriage from Hull is 10s. 10d. [\$2.63] per ton and must be 15s. [\$3.65] sea freight, or, say, £8 14s. 2d. [\$42.38] f. o. b., and the price in New York is £10 5s. 6d. [\$50] or more.

Yours, very truly,

JOS. DIXON.

NOTE.—The conversions into United States currency, in brackets, have been added by me.

CHAS. N. DANIELS, *Consul*.

INTERNATIONAL PAPER COMPANY,
New York, June 11, 1908.

HON. JAMES R. MANN,

Chairman Select Committee on Paper and Pulp Investigation,
House of Representatives, Washington, D. C.

DEAR SIR: In the statement submitted by this company at the hearing we refer to the reputed enormous earnings upon the investments

of certain New York newspapers. We would like to add another paper as corroborative of our statements as to the relatively small amount of money necessary to provide the plant of a newspaper, compared with the return upon the same.

We refer to the Indianapolis News. The net earnings shown by the sworn report of Hilton U. Brown, the receiver, for the operation of the paper for one year and eight days amounted to \$92,000. This is net, after having paid all expenses of the operation of the paper and the expenses of the receivership.

The receiver took charge of the paper about eight years ago, being appointed on account of a disagreement between the partners relative to the management of the paper and not on account of financial difficulties. The earnings given above, I understand, were for the first year of the receivership. Since that time the News has doubled its charge for advertisements.

One year their return for assessment for taxation was a little over \$47,000, and at that time they had a circulation of about 42,000, and it was said in the evidence that the earning capacity of the newspaper depended upon the circulation. It is now claimed in the statements they have published that they have a circulation of about 78,000 or 80,000, and it is estimated on reliable authority that the present profits are not less than \$200,000 per annum.

An attempt was made by a dissatisfied taxpayer to have the assessment for taxes of the News raised, basing his claim on the ground that the paper had been sold by the receiver for \$936,000. In the tax proceedings the News publishers maintained that they were liable for assessment only upon their physical properties, and that the great value of the property was the "good will," which was not assessable, and the court upheld them in this position and refused to raise their assessment.

This gives an insight into the amount of capital in the publishing business represented by "good will," which in many instances means a monopoly in the purveying of news.

Notwithstanding its enormously prosperous condition the Indianapolis News has taken the position that the duty on paper is iniquitous and the prices of paper extortionate.

Very truly, yours,

CHESTER W. LYMAN,
Assistant to President.

AMERICAN NEWSPAPER PUBLISHERS' ASSOCIATION,
New York, June 13, 1908.

HON. JAMES R. MANN,
House of Representatives, Washington, D. C.

DEAR MR. MANN: The inclosed preamble and resolutions of the American Newspaper Publishers' Association may interest you.

Yours, truly,

JOHN NORRIS,
Chairman Committee on Paper.

[The New York Times, Friday, June 12, 1908.]

John Norris has resigned his post as business manager of The New York Times to accept an appointment tendered him by the American Newspaper Publishers' Association for the promotion of the aims of the organization in the matter of news-print paper. The directors of the association adopted these resolutions yesterday:

"Whereas the recent Congressional investigation of the manufacture and distribution of paper surprised and startled publishers and paper makers by reason of the extraordinary revelations in the marketing of paper; and

"Whereas the postponement by Congress of action upon the proposition to place pulp and printing paper upon the free list, and the decision of its select committee to continue the investigation until December next, thrust upon the American Newspaper Publishers' Association, and upon publishers generally, the necessity for continuing their efforts to safeguard and promote their interests; and

"Whereas Chairman Mann, of the select committee, has introduced in Congress a bill which indicates an inclination to ascertain the possibility of reciprocity arrangements with Canada; and

"Whereas the paper makers are united and organized to protect their interests; and

"Whereas the information in the interest of paper makers which is being disseminated to justify the maintenance and increase of prices presents only one side of the question; and

"Whereas, through the vigilance of this association, the pools controlling the output of fiber and manilla paper boards are now under close judicial scrutiny, and it appears that other paper pools are likely to be subjected to the same scrutiny; and

"Whereas the efforts of this association to invoke Federal aid have already caused a repudiation of the proposed advance to \$60 per ton and an abandonment of the \$50-per-ton price; and

"Whereas the paper makers have represented that the large advances in price for all kinds of paper had been forced upon them by reason of reductions in the hours of labor, due to changes from twelve-hour shifts to eight-hour shifts; and

"Whereas a recent canvass shows that only 29 out of 245 paper mills had made such change; and

"Whereas the work thus far done in behalf of this association has been carried on by volunteers; and

"Whereas the situation with respect to the expenditure by publishers of more than \$40,000,000 per annum for news-print paper has reached a stage where organized effort and concentrated energy on the part of the publishers seem essential to an earnest and aggressive campaign, looking to a broader market, a dissolution of paper makers' combinations, and the procuring of the proper representation of this association before committees of Congress and elsewhere; and

"Whereas the board of directors is of opinion that John Norris is equipped to undertake these services for the association: Now, therefore, be it

Resolved, That the president be authorized to engage the services of John Norris for a period of two years, upon terms to be agreed upon by them, for the promotion of the aims of the American Newspaper Publishers' Association in the matter of news-print paper."

GRAND RAPIDS PULP AND PAPER COMPANY,
Grand Rapids, Wis., June 15, 1908.

MR. J. R. MANN,
Select Committee on Pulp and Paper Investigation,
Washington, D. C.

DEAR SIR: In accordance with your request, we inclose herewith labor scale per hour for years 1904, 1905, 1906, and 1907.

Yours, truly,

GRAND RAPIDS PULP AND PAPER CO.

Wage scale per hour.

	1904.	1905.	1906.	1907.
	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>
Wood room:				
Foreman.....	17½	17½	16½	22½
Sawyer.....	16½	16½	16½	17
Helpers.....	15	15	15	17
Grinder room:				
Foreman.....			25	25
Helpers.....	13½	13½	13½	15
Wet machine room:				
Tenders.....	14½	14½	14½	16½
Roll skimmers.....	10½	10½	12½	12½
Beater room:				
Beater foreman.....	18½	18½	18½	23
Beater men.....	18½	18½	18½	15½
Sizeman.....	16½	16½	16½	17
Hauling in raw material—				
Foreman.....	15	15	16½	18
Helpers.....	15	15	16½	17
Machine room:				
Machine tenders.....	30	30	30	31½
Back tenders.....	20	20	20	20
Third hands.....	12½	12½	12½	15
Fourth hands.....			12½	14
Oilers.....	10½	10½	12½	12½
Boiler machine tender.....				37
Finishing room:				
Cutter man.....	17½	17½	17½	22½
Tier man.....	17½	17½	17½	20
Helpers.....	15	15	15	17
Shipping room:				
Foreman.....	18½	16½	16 to 28	20
Helpers.....	15	15	15	17
Boiler room:				
Engineers.....			20½	28½
Head fireman.....	14½	14½	17½	18½
Do.....	13½	13½	14½	14½
Coreman, oiler.....	16½	16½	17½	19
Watchman.....	16½	16½	16½	16½
Millwright.....	32½	32½	32½	32½
Millwright helper.....	15	15	17½	19
Carpenter.....			25	25
Machinist.....				30
Teamster.....	17½	17½	17½	17½

DEPARTMENT OF COMMERCE AND LABOR,
BUREAU OF THE CENSUS,
Washington, June 17, 1908.

HON. JAMES R. MANN,

*Chairman Select Committee on Pulp and Paper Investigation,
1350 First National Bank Building, Chicago, Ill.*

DEAR MR. MANN: As some time has now elapsed since we sent the reminder letter to the paper and pulp manufacturers and consumers of news-print paper, I think it well to tell you the situation of the work and receive further instructions.

Canvass of pulp and paper manufacturers.

Schedules mailed.....	931
Schedules received.....	172
Plants represented by schedules received.....	220

In addition to this number, 70 reports were received from manufacturers which stated that they were not engaged in the manufacture of wood pulp and paper. Some of these were included in the Census total for the industry, because the class of their products were so closely allied with the paper industry that it was thought proper to include them in the general group.

But very few schedules are now being received, and it is evident that the manufacturers do not intend to make complete reports. It is possible that another reminder would result in getting a few additional schedules, but I am satisfied that a thorough canvass can not be made unless agents are sent into the field to visit each plant and secure the desired data; therefore, under present methods, we can not hope to secure totals that are comparable with the census total for 1904. Please advise me if we should make further effort to secure the returns from manufacturers.

Canvass of consumers of news-print paper.

Schedules mailed	6, 932
Schedules received from the first call.....	1, 394
Schedules received since reminder letter was mailed.....	428
Total received to date.....	1, 822

Very few schedules are now being received, and I am afraid it will be impossible to secure reports from all of the establishments to which this schedule was sent, unless repeated reminder letters are mailed or special agents are employed. Please advise me if we shall make further effort to secure the reports for this branch of the investigation.

If no further effort is to be made to secure the returns for either branch of the investigation, can the tabulation be made, of course with arrangements to include returns that may reach the office during the next three or four weeks?

Upon examining the testimony taken by the committee, I find considerable data which could possibly be collated and arranged so as to obtain averages and results that would strengthen the data secured by the use of the schedules that have been mailed to the manufacturers and consumers of paper. Do you care to have the office compile this data and present it, or at least the averages obtained from it, in connection with those we secured through the schedules?

Awaiting the receipt of your reply and further instructions, I am,
Very respectfully,

W. M. STEUART,
Chief Statistician for Manufactures.

CHICAGO, July 14, 1908.

Mr. W. M. STEUART,
*Chief Statistician for Manufactures,
Census Office, Washington, D. C.*

DEAR MR. STEUART: I hope you will pardon my failure to give earlier reply to your letter of June 17. I think it would be well to send another reminder to the manufacturers and probably inclose another copy of the schedule. I hardly think it necessary to send another letter to the newspaper publishers. I wish very much that you would have some one go through the testimony taken by the special committee and work out any results that you can from that. There is much valuable information I think in the published hearings. I fear I will not have either the time or the proper training

to get the most available information out of the statistics, etc., furnished to us and published in the hearings. I will be greatly obliged to the Census Office if you can put some good person at work on this.

The principal object in asking newspaper publishers to fill out the schedules sent to them was to ascertain the prices at which paper had sold on different dates. While the great majority of the publishers seem not to have interest enough in the matter to reply, yet probably those who have been most affected by the increased price in paper have probably replied. In working up these schedules, I suggest that a distinction be made between the ordinary paper and trade and special publications. In other words, the schedules which have been returned will cover more kinds of paper than the simple ordinary common news-print paper, and unless the different grades of paper are kept separate as far as possible in the compilations the results will not be valuable. In addition to the schedules which were returned there is considerable information in the hearings from certain newspapers as to quantities and price which might be added to the schedules in compiling the results.

Yours, very sincerely,

JAMES R. MANN,
*Chairman Special Committee on
Pulp and Paper Investigation.*

UNITED STATES DEPARTMENT OF AGRICULTURE,
FOREST SERVICE,
Washington, June 27, 1908.

Hon. J. R. MANN,
1729 Q Street, Chicago, Ill.

DEAR MR. MANN: When you were in my office just before Congress adjourned I promised to let you know what material the Forest Service could supply by next fall that would be helpful in your inquiry into the pulp and paper-making industry. The information which the Service can furnish will deal principally with the supply of pulp wood in the United States and Canada; also, to some extent, with the supply of other materials than wood which can probably be utilized for pulp making. The section of forests of the Commission on the Conservation of Natural Resources will, within the next few months, make the fullest possible investigation of the timber supply of the United States. In this investigation the supply of pulp wood will be thoroughly considered; data will also be collected upon the Canadian timber supply. A preliminary report will be made by the Commission not later than January 1.

Under the provisions of the special appropriation to allow the Secretary of Agriculture to "test such plants as may require tests to ascertain if they be suitable for making paper," the Bureau of Plant Industry and the Forest Service will cooperate in ascertaining the available supply of fibrous plants in the United States which give promise of being commercially suitable for paper making. So far as possible laboratory tests will also be made upon these plants to ascertain how the pulp produced from them compares in yield and quality with that produced from various kinds of wood. It is expected that the preliminary report of this study will also be made not later than January 1.

You see, therefore, that we shall get considerable information that will have a direct bearing upon the problems which your committee has in hand. Some general conclusions can undoubtedly be drawn and made available for your use before Congress convenes.

Very sincerely, yours,

GIFFORD PINCHOT, *Forester.*

CHICAGO, July 14, 1908.

HON. THEODORE ROOSEVELT,
President, Oyster Bay, N. Y.

DEAR MR. PRESIDENT: Before leaving Washington in June I called upon Mr. Pinchot, Forester, in behalf of the Special Committee on Pulp and Paper Investigation, and requested that the Forest Service make special investigation as to the quantity of spruce and other valuable forests suitable for pulp wood in this country and the same in Canada—in this country by States and localities, as far as possible, and in Canada by Provinces and localities. Also, as to the reproduction of spruce forests under natural conditions and the probable quantity of pulp wood which could be indefinitely cut from the spruce forests of the United States under proper forestry methods.

Mr. Pinchot expressed his great desire to serve the special committee in these regards and to obtain and furnish all the information possible. I think, however, it may be desirable, owing to your great interest in the matter, for you to give directions that the Forestry Service shall furnish to the special committee and the House any information relating to the subject under investigation which it is possible to obtain and furnish.

Yours, most truly,

JAMES R. MANN, *Chairman.*

TREASURY DEPARTMENT,
OFFICE OF THE SECRETARY,
Washington, June 11, 1908.

HON. JAMES R. MANN,
*Chairman Committee on Pulp and Paper Investigation,
House of Representatives.*

SIR: Replying to your recent request that this Department obtain for the use of your committee certain information relative to importations of wood pulp, filter masse, printing paper, and pulp woods at the leading ports during the period from January 1, 1907, to June 1, 1908, I have the honor to transmit herewith, for your information, copy of a letter this day addressed to the collectors of customs at Bangor, Me.; Boston, Mass.; New York, Buffalo, Ogdensburg, Oswego, Cape Vincent, Plattsburg, Niagara Falls, N. Y.; Philadelphia, Erie, Pa.; Newport, Burlington, Vt.; Detroit, Port Huron, Marquette, Mich.; Baltimore, Md.; Bridgeport, New London, Conn.; New Orleans, La.; Milwaukee, Wis.; and the surveyors of customs at Dayton, Ohio, and Kansas City, Mo., asking for the statistics you desire.

Respectfully,

J. B. REYNOLDS,
Assistant Secretary.

TREASURY DEPARTMENT,
OFFICE OF THE SECRETARY,
Washington, June 11, 1908.

The COLLECTOR OF CUSTOMS,
Bangor, Me.

SIR: I have to request that you forward to the Department at your earliest convenience a tabulated statement, in duplicate, showing the date of arrival, quantity, appraised value, and country of origin of each importation at your port, together with the duties collected thereon, covering the period from January 1, 1907; to June 1, 1908, of the following:

1. Of the various kinds of wood pulp specified in paragraph 393 of the tariff act of July 24, 1897.
2. Filter masse or filter stock under paragraph 395.
3. Of the various classes of printing paper provided for under paragraph 396.
4. Pulp woods under paragraph 699.

Notations will be made of shipments on which additional duties have been collected under the provisos to paragraphs 393 and 396, stating the amounts.

In preparing this tabulated statement, the name of the importer need not be given.

Respectfully,

J. B. REYNOLDS,
Assistant Secretary.

CHICAGO, July 14, 1908.

HON. THEODORE ROOSEVELT,
President, Oyster Bay, N. Y.

DEAR MR. PRESIDENT: Before leaving Washington in June I called upon the Treasury Department in behalf of the Special Committee on Pulp and Paper Investigation to obtain certain information relative to importations of wood pulp, printing paper, pulp wood, etc., and I am informed on June 11 a circular letter was sent out to various collectors of customs, asking for information in compliance with this request. While the Treasury Department has been very active and very courteous in obtaining and furnishing information to the special committee, I think possibly that, owing to your great interest in the subject under investigation, you may desire to direct the Treasury Department to furnish to the special committee every facility possible in the way of collecting information.

I beg to remain,

Yours, very sincerely,

JAMES R. MANN, *Chairman.*

CHICAGO, July 14, 1908.

HON. THEODORE ROOSEVELT,
President, Oyster Bay, N. Y.

DEAR MR. PRESIDENT: Before leaving Washington in June I called upon Mr. O. P. Austin, Chief of the Bureau of Statistics in the Department of Commerce and Labor, and asked that Bureau to collect statistical information for the use of the Committee on Pulp

and Paper Investigation. Mr. Austin expressed his desire to furnish all the information possible, but there may be some expense in collecting a portion of the information desired and I think perhaps it would be well, owing to your great interest in the subject under investigation, to direct the Department of Commerce and Labor to obtain and furnish for the special committee any and all information which may relate to the subject which is asked for.

Yours, very truly,

JAMES R. MANN, *Chairman.*

CHICAGO, *July 15, 1908.*

HON. THEODORE ROOSEVELT,
President, Oyster Bay, N. Y.

DEAR MR. PRESIDENT: During the work of the Special Committee on Pulp and Paper Investigation the Census Office has been very diligent in doing work for the committee. The committee now desires to have considerable work done in the Census Office which may involve some expense, and as you expressed your desire to furnish any facilities within your power to the committee I beg to ask that you will direct that the Census Office furnish to and for the benefit of the committee any means within its power.

I have the honor to remain,

Yours, most truly,

JAMES R. MANN, *Chairman.*

AMERICAN NEWSPAPER PUBLISHERS' ASSOCIATION,
New York, July 13, 1908.

HON. JAMES R. MANN, *Chicago, Ill.*

DEAR SIR: Your consideration of the inclosed letter to the President about paper combinations is earnestly solicited.

The letter dwells upon three phases of the subject that seem to be pressing, viz, the immunity of individuals, the inadequacy of penalties, and the apparent hopelessness of relief through the courts.

Yours, truly,

JOHN NORRIS,
Chairman Committee on Paper.

A letter to the President about paper combinations.

AMERICAN NEWSPAPER PUBLISHERS ASSOCIATION,
New York, June 29, 1908.

TO THE PRESIDENT:

May we invoke the aid of your powerful office in our effort to stop the oppressions of paper combinations? When the American Newspaper Publishers Association applied to Congress for relief, we were told that the courts would provide adequate and prompt remedy. Eight months ago we submitted to the Department of Justice all the material which we had, relating to seven groups of paper makers. The outcome of eight months' effort in that direction is insignificant. Twenty-four paper companies, acting together in the Fibre and Manila Association, added \$16 per ton to the price of fiber and manila paper on an annual output of 200,000 tons, in successive raises of \$5, \$2, \$2, \$3, and \$4, so that an average addition of \$10 per ton or \$2,000,000 per annum was imposed by that combination upon consumers. When they were subjected to inquisition by the Federal grand jury, the paper makers admitted that they

had placed their records beyond their reach, but subsequently all but two of the participants pleaded guilty. They were fined \$2,000 each, or \$48,000 in all. The maximum penalty is \$5,000 for each offense. Immunity was practically granted to every individual who participated in that pool—only one man, the treasurer, and originator of the pool, John H. Parks, now a fugitive in Europe, was included in the indictment. All the other defendants were corporations or partnerships. We maintain that such a finish to the procedure is a miscarriage of justice. When a fine of \$48,000 is imposed for an extortion of \$2,000,000 it places a premium upon lawlessness, and brings vividly to us a realization of the hopelessness of relief under methods that prevail, especially when the United States district attorney, while granting immunity to the individuals, urges leniency for the corporations which employ them. How different this case is from that of the ancient law, when the wrongdoer lost not only the property which he had wrongfully taken, or the value of that which he had destroyed, but also all the rest of his property was forfeited to the State. Here, a corporation breaks the law, and it secures immunity for the offending individual.

So far as we have been able to learn, no steps have been taken against the Box Board Pool, operated from the same office of John H. Parks, or against the Sulphite Pulp Association, whose by-laws and membership were submitted to the Department of Justice eight months ago, or against the other offenders.

The operations of the Box Board Pool in twenty-six months included invoices of \$32,000,000, with net profits of \$4,835,852 on 853,677 tons.

The counsel of the paper makers who pleaded guilty in New York on the 19th instant, stated that their output represented only 23 per cent of the total production of wrapping paper. The letters set forth in the indictment and the books and records now in the possession of the United States district attorney at New York, indicate (see folio 242 of indictment) that the Western Fibre and Manila Mills, which were under distinct prohibition against restriction of output, met in November, 1907, and decided to restrict production. We are confident those records will also disclose the methods by which the 23 per cent of indicted paper makers secured the cooperation of the other 77 per cent to maintain the extraordinary advances in price. One of the conspirators, the Petoskey Fibre Paper Company, which had been a member of the General Paper Company, and which had been enjoined by the United States court on June 18, 1906, from participation in such pools, failed to enter an appearance. It figured upon the records of the indicted association as "Charles Jones." Another of the conspirators, the Continental Paper Bag Company, is the exclusive selling agent for four mills of the International Paper Company, which have a capacity for 63,000 tons of manila paper per annum. The character of the criminality of that connection may be inferred from the fact that the name of the Continental Paper Bag Company was entered upon the books of the association as "John Smith," and letters pertaining to its business with the association were addressed to "John Smith, New York."

The hopelessness of our efforts for relief may be appreciated when it is known:

(a) That G. H. P. Gould appeared as an individual before the Mann committee on Saturday, May 16, 1908, and testified (p. 1011 of hearings) that he did not know of any agreement or understanding of any kind among the paper manufacturers or the selling agents to put a fixed or concerted price upon paper or to restrict the output. Yet on June 19, 1908, "the Gould Paper Company," the corporation of which H. P. Gould is president, pleaded guilty to the indictment charging the regulation of price and of output in restraint of trade for a period beginning September, 1906.

(b) Tom T. Waller, vice-president of International Paper Company, testified (see p. 1169 of hearings) on May 18, 1908, before the Mann committee, that the International Paper Company had not directly or indirectly, or through selling agents, participated in any pooling arrangement, and this statement applied to "any grade of paper." Yet on June 19, 1908, his company's exclusive selling agent, the Continental Paper Bag Company, pleaded guilty to the charges, and the indictment shows that the association voted (see folio 55 of indictment) to send its uniform price list to Mr. Sparks, of the Union Bag and Paper Company, and "one to Mr. Waller of the International Paper Company for their guidance."

(c) Officers operating Western Fibre and Manila Mills appeared before the Mann committee and testified that they knew of no arrangements for restricting output or fixing prices, yet they did meet. They did agree to close their

mills for a period. They did close their mills, and they did so in disregard of the prohibition of the United States court, dated June 18, 1906.

If such acts are to be tolerated, then the whole proceeding becomes a travesty upon government. May we ask what becomes of the consumer? What becomes of the other paper pools? How long must we wait before the news-print paper user will obtain relief? Are prevarication and perjury and acts of contempt to go unpunished? Are the distinct prohibitions of the courts to be ignored?

The Fibre and Manila Association, the Box Board Pool, and the Sulphite Pulp Association—each and all affect the news-print paper situation. When mills which can be changed to make news-print paper with slight cost are made excessively profitable in other directions by these pooling arrangements, then their equipment is kept out of news-print paper production and a news-print paper famine is promoted. Meanwhile the news-print paper companies are aiming to maintain what are believed to be "agreed prices," and are keeping their mills partially closed because the consumers will not buy more than a hand-to-mouth supply at the present high figures. Many of the mills are running part time and their labor is curtailed, while Canadian mills are filling orders that should be made in American mills. Canadian labor is employed while American mills are continuing a test of endurance with their customers. Not only are the paper makers keeping their own employees in idleness, but they are enforcing idleness upon thousands of workers in printing and publishing plants throughout the country. The testimony of the officers of allied printing trades unions upon that point is overwhelming. I send herewith a copy of the indictment.

In view of the seeming immunity of individuals, the inadequacy of penalties, and the apparent hopelessness of relief, does not this situation require drastic treatment? May we not ask you to bring these lawbreakers to their senses, and to end a lawless condition which interferes with a return of prosperity?

Yours, truly,

HERMAN RIDDER,
President American Newspaper Publishers' Association.

HD 9821
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1908

PULP AND PAPER INVESTIGATION HEARINGS

September 15, 16, and 17, 1908

SELECT COMMITTEE OF HOUSE OF REPRESENTATIVES

JAMES R. MANN, Illinois, *Chairman*

JAMES M. MILLER, Kansas

HENRY T. BANNON, Ohio

WILLIAM H. STAFFORD, Wisconsin

THETUS W. SIMS, Tennessee

WILLIAM H. RYAN, New York

NO. 28

WASHINGTON
GOVERNMENT PRINTING OFFICE
1908

WOOD PULP, PRINT PAPER, ETC.

SELECT COMMITTEE ON PULP AND PAPER INVESTIGATION,
Tuesday, September 15, 1908.

On Tuesday, September 15, 1908, the committee visited and inspected 3 mills of the Kimberly-Clark Company, manufacturers of book and writing papers; the Bergstrom Paper Company, manufacturers of book, bond, and manila paper, and the Neenah Paper Company, manufacturers of writing paper, all at Neenah, Wis.

And also the mills of the Island Paper Company, manufacturers of sulphite and wrapping paper, and the Gilbert Paper Company, manufacturers of writing paper, the two latter at Menasha, Wis.

The committee was called to order at 2 p. m. at the Hotel Menasha, in Menasha, Wis., Hon. James R. Mann, presiding.

STATEMENT OF AUGUSTUS SPIES, PRESIDENT AND MANAGER OF MARINETTE AND MENOMINEE PAPER COMPANY.

The witness was duly sworn by the chairman.

The CHAIRMAN. Give us your full name.

Mr. SPIES. Augustus Spies.

The CHAIRMAN. What mill are you connected with?

Mr. SPIES. The Marinette and Menominee Paper Company.

The CHAIRMAN. What do you manufacture?

Mr. SPIES. We manufacture pulp, sulphite, wrapping paper—manila wrapping paper.

The CHAIRMAN. That is the only finished product that you have, manila wrapping paper?

Mr. SPIES. Yes, sir.

The CHAIRMAN. And sulphite and ground pulp?

Mr. SPIES. Sulphite and ground pulp. We also manufacture jute wrapping.

The CHAIRMAN. What is the capacity of your mill?

Mr. SPIES. We have 3 mills. That depends on the grade of paper that we make, the weight of the paper. We do not run the same as on printing paper. On printing paper they run on a certain weight. We run say from a 20-pound weight up to 100. The amount of pounds would differ greatly. On 20 and 25 pound paper we can not manufacture near as much as we can on 60 and 50.

The CHAIRMAN. I suppose you have some basis upon which you estimate the capacity of your mills.

Mr. SPIES. Yes, we generally run about 3,000,000 pounds a month when we have plenty of water and everything in good running order.

The CHAIRMAN. What power do you have?

Mr. SPIES. Water and steam.

The CHAIRMAN. What proportion of water and what proportion of steam?

Mr. SPIES. One mill has two engines and several boilers. We run the paper machine by steam in one mill, and also the Jordan.

The CHAIRMAN. Are you running full capacity now?

Mr. SPIES. No.

The CHAIRMAN. Why not?

Mr. SPIES. We have no water.

The CHAIRMAN. What proportion of your full capacity are you running now?

Mr. SPIES. We are likely running half.

The CHAIRMAN. Are you getting any water power at all?

Mr. SPIES. Very little.

The CHAIRMAN. Are you grinding any now?

Mr. SPIES. Very little. We are buying wood now and also sulphite.

The CHAIRMAN. You are buying ground pulp now?

Mr. SPIES. Ground pulp, yes.

The CHAIRMAN. Where do you buy from?

Mr. SPIES. At present we are getting it from Cribitz. That is a little pulp mill. They grind only pulp there for market.

The CHAIRMAN. Can you tell us about how much wood you use in the course of a year?

Mr. SPIES. We shall use if we have a fair season the year around, if we do not have any drought and have plenty of water we can use from 30,000 to 36,000 cords.

The CHAIRMAN. Where do you get your wood from?

Mr. SPIES. From our lands, principally from the lands of the stockholders.

The CHAIRMAN. Does the company itself own any timber land?

Mr. SPIES. The paper company, well, not of any account.

The CHAIRMAN. The stockholders do own timber land?

Mr. SPIES. Yes.

The CHAIRMAN. Where are these lands?

Mr. SPIES. In the upper peninsula of Michigan and northern part of Wisconsin. The lands are located mostly on the branches of the Menominee River.

The CHAIRMAN. Can you tell us in reference to the supply of timber up there that is available for the manufacture of wood pulp?

Mr. SPIES. I can only tell you as far as we are concerned.

The CHAIRMAN. Have you had any trouble about getting plenty of pulp wood?

Mr. SPIES. No.

The CHAIRMAN. Do you cut your own pulp wood?

Mr. SPIES. We cut it on our lands principally.

The CHAIRMAN. That is, where the stockholders own lands does your paper company cut the wood?

Mr. SPIES. No; they furnish the wood. We pay them for the pulp wood. They log at the same time.

The CHAIRMAN. Do they have sawmills up there?

Mr. SPIES. Yes.

The CHAIRMAN. Do they use the logs for the sawmills?

Mr. SPIES. Yes.

The CHAIRMAN. And only the smaller part for the pulp wood?

Mr. SPIES. Practically. We are practically lumbermen.

The CHAIRMAN. The pulp wood is really a sort of a by-product only, then?

Mr. SPIES. Yes; so far it has been.

The CHAIRMAN. Is there plenty of forest up there?

Mr. SPIES. Well, no; not plenty.

The CHAIRMAN. What do you use mostly, spruce or hemlock?

Mr. SPIES. Hemlock mostly.

The CHAIRMAN. Is that cutting from hard-wood forests?

Mr. SPIES. It is mixed in with hard wood a good deal.

The CHAIRMAN. Do they do this logging mostly for the hard wood?

Mr. SPIES. Yes; now there is very little pine left. Most of these lands now they cut the pine years ago.

The CHAIRMAN. What are you paying for pulp wood now?

Mr. SPIES. We are not buying any now.

The CHAIRMAN. When did you buy any?

Mr. SPIES. Our contracts were made about a year ago now, and they overstocked us. The panic struck us and our trade was small. We could not sell and the wood was sawed out because there wasn't much else to do in the woods. So we got out a surplus, and then the dry weather coming on later we still were handicapped about using up our wood, so we got a great surplus. I don't know hardly what to do with it. We are afraid the fire will burn it up. We have to have extra watchmen to watch it.

The CHAIRMAN. Wood piled up in your yards you mean?

Mr. SPIES. Yes, in the yards and on the banks of the river. I think we have nearly enough for a year from now on.

The CHAIRMAN. You bought a large amount of wood at a very high price?

Mr. SPIES. The wood was contracted for at a very high price, yes, before the panic, and they would not let us off because they had a good thing.

The CHAIRMAN. Did you contract for two years' supply?

Mr. SPIES. One year; but our mills did not run steadily in the winter. They run off and on on account of no orders, and the drought this summer hindered us again. We would like to run more but we couldn't. We hadn't water power. For grinding pulp we need considerable power.

The CHAIRMAN. I do not quite understand how, if you contracted at a high price for only one year's supply and did use some of it, you still have a year's supply on hand.

Mr. SPIES. We generally contract for more than we need, and in good times we just about get enough, but this time we got an overstock. They got in more than we wanted, and, of course, in order to be good to them, we took it.

The CHAIRMAN. Do you pay so much delivered?

Mr. SPIES. No; we pay the freight there by rail. We also pay for driving it on the different streams. That is extra. That costs according to the amount of driving it takes. If the water is low it costs more.

The CHAIRMAN. On what basis do you make the contract; at what price do you figure that the price attaches to the wood?

Mr. SPIES. We usually make our contract according to the amount of driving there is. It ranges from—the driving may cost 50 cents, 75 cents, or \$1 or 10 shillings a cord—along there. According to

that, the contracts are made. It is the same by rail. Where the wood is farther off and costs more for freight the price is less at the point of loading.

The CHAIRMAN. Have you any other suggestion that you want to make to the committee?

Mr. SPIES. I do not know of any.

The CHAIRMAN. Do you have any fear about the future supply of wood?

Mr. SPIES. Well, of course, we will surely be out of wood in due time, and we figure on getting wood from Canada if we can.

The CHAIRMAN. Would it be, in your judgment, feasible to bring wood across Lake Superior?

Mr. SPIES. I think so, yes.

The CHAIRMAN. If you could obtain the right to import it?

Mr. SPIES. That would be our intention hereafter.

The CHAIRMAN. Of course, the regulations of the Ontario government now prohibit the exportation of pulp wood cut on the crown lands, as I understand it, which comprise, I guess, most of the available supply there. If you could obtain pulp wood from north of Lake Superior without any extra charge over that which is made against those who use it in Ontario, do you think you could compete with them on even terms?

Mr. SPIES. I think so.

The CHAIRMAN. Without a tariff on pulp?

Mr. SPIES. Yes.

The CHAIRMAN. Do you have any special knowledge at all in reference to the spruce forests in Ontario?

Mr. SPIES. Only what I read and hear from others.

The CHAIRMAN. You have a general understanding, I suppose, that they have large forests?

Mr. SPIES. Large forests, yes—endless. I have always had that idea from the time I went to school. When I went to school we had an idea of annexing Canada when we needed the wood. That was brought out right in Appleton; we had a discussion on that when I went to college. It was carried unanimously. I am a Lawrence student. I went to college here myself. Of course it was before these boys were born, likely. I think Canada will supply us with wood very shortly.

The CHAIRMAN. Supposing Canada should refuse to permit the exportation of pulp wood to the United States or out of Canada?

Mr. SPIES. They can not refuse it.

The CHAIRMAN. They do refuse it now.

Mr. SPIES. Well, they do now, but if Uncle Sam is willing to make the right kind of a contract we think they will not.

The CHAIRMAN. Suppose that Canada should refuse to permit the exportation or should continue its present refusal to permit the exportation of pulp wood, what would in your judgment become of the wood pulp business in Wisconsin?

Mr. SPIES. I think where there is a will there is a way. I do not think there is any such thing as their refusing. I have no idea that they will refuse. Where there is a will there is a way, and the American people will have it. They have got such an immense supply of it they would be glad to realize on it and let us have the wood.

The CHAIRMAN. What I want to get at is whether, in your opinion, there is wood supply enough in the Northwest to continue to furnish pulp wood to the wood pulp mills of Wisconsin.

Mr. SPIES. You mean in Canada?

The CHAIRMAN. In the United States.

Mr. SPIES. Only in the United States?

The CHAIRMAN. Yes.

Mr. SPIES. We are limited in the United States, of course.

The CHAIRMAN. Do you know anything at all about the spruce forests of the far west in the United States?

Mr. SPIES. Well, there are immense spruce forests, but I think the large bulk of it belongs to Canada; and the experience is, as far as Oregon and Washington are concerned, there is likely to be more of it burned than will ever be used. That is the experience we had up north here. A good deal of our wood burned. Since I have been in Menominee there have been millions and millions of it burned.

The CHAIRMAN. It is your opinion, then, that as far as the cost of labor is concerned, the cost of machinery, and other costs of operation, you could compete on even terms with any wood-pulp mills that may be established in Ontario if you can get your pulp wood on even terms from Canada?

Mr. SPIES. I do.

The CHAIRMAN. If that pulp wood were brought from the north side of Lake Superior would it be feasible to bring it over by boat or rafts?

Mr. SPIES. Either way. It might be brought in on rafts. A much more feasible way now would be car ferry. That is the latest and the quickest and most feasible way. We buy 10,000 tons of coal annually for drying the paper, and we have deep water, and we don't even use the vessels to bring our coal. We bring it all by car ferry, because it is cheaper. Car ferry is the cheapest.

The CHAIRMAN. Where do you get your coal from?

Mr. SPIES. We get it from Ohio or from Pittsburg. We use Pittsburg No. 8, get it from Pennsylvania.

The CHAIRMAN. Have they any car-ferry lines from Ohio to Menominee?

Mr. SPIES. No, not all the way, but we have it across Lake Michigan. They don't break bulk. The reason it is cheaper for us, the car-loads of coal are emptied directly into our fire hole. We have no handling whatever. If we get it by vessel we have to rehandle it and that rehandling and unloading and reloading and switching would cost us more than it costs now. So I think the pulp wood will likely be brought that way. Anyway, we should have it that way if we went into Canada. We wouldn't think of bringing it any other way. Our car ferry runs from Frankfort over to Menominee.

STATEMENT OF NATHANIEL M. JONES, OF BANGOR, ME.

The CHAIRMAN. Will you give your name?

Mr. JONES. Nathaniel M. Jones.

The CHAIRMAN. You are a resident of Maine, I believe?

Mr. JONES. Yes; Bangor.

The CHAIRMAN. State senator there?

Mr. JONES. Yes. The mills are at Lincoln.

The CHAIRMAN. You happened to be here on business?

Mr. JONES. Yes, sir.

The CHAIRMAN. I understand you have paper mills, sulphite-mill interests, and considerable knowledge on the subject of the timber supply, and we would be glad to have you give us such information as you can on the subject.

Mr. JONES. I have a great deal of data on that subject, Mr. Chairman, but it is all at home. I regret I haven't it here.

The CHAIRMAN. I appreciate the fact that you were not expecting to testify.

Mr. JONES. What lines would you like?

The CHAIRMAN. I would like to have especially the question of the supply of pulp wood from the present available timber of the United States, in connection with the proposition as to the necessity of the use by the American mills of Canadian pulp wood.

Mr. JONES. My opinion of the matter is that the pulp and paper interests, together with the lumber interests, are consuming our forests faster than they are reproducing themselves; and we are experiencing a greater loss of timber by the lumber interests than by the pulp interests. The pulp interests, as I remember the figures, have consumed about 4 to 5 per cent of the forests cut, and about 50 per cent of the 5 per cent that they are using is of a class of timber that is unfit for lumber purposes or timber purposes. So that the decrease in our forest supply is not wholly due to the use of the timber by the pulp mills, as a good many people seem to think. Of course, in Maine we have a very bountiful supply of wood. On the Penobscot River we have not cut our timber as small as they have on most other rivers, some even in Maine. Our regulation cut there is fourteen inches at the stump, which is a fairly good-sized log.

The CHAIRMAN. That is on the land that is controlled by your company?

Mr. JONES. And others. The parties who own the timber lands in Maine will not permit timber to be cut on their lands except under that regulation.

The CHAIRMAN. You mean that is the general custom in Maine now?

Mr. JONES. The general custom of the timber land owners. We cut from our own lands about 50 per cent of our consumption, and the balance we cut from lands that we obtain permits from their owners for cutting, and that is the regulation in all the permits that we have. I own some lands now which I permit to others, and we insist on that regulation also.

The CHAIRMAN. Can you tell how long after cutting from the lands under such regulations it is until it can be profitably cut over again under the same regulations?

Mr. JONES. It is estimated about fifteen years. For instance, I happened to be on some land a short time ago that was operated on about twelve years ago, and right alongside of a stump that had been cut was a tree—within five or six feet of it. The man who was with me happened to be the man who operated on that land twelve years before. The tree growing by the side of that stump was larger than the one that had been cut. He had left it ten or twelve years before because it was too small. At this time it is amply large to be cut. We got some small wood, a very limited quantity, that is cut by farm-

ers in clearing their land, but that is so small a quantity that it is hardly worth considering.

The CHAIRMAN. Is it the general custom in Maine, now, where the timber is, to practice what they call the conservation of forests?

Mr. JONES. Yes.

The CHAIRMAN. Not to cut clean?

Mr. JONES. Not to cut clean. That method is practiced by the International Paper Company, the Great Northern Paper Company, and, in fact, all others. The owners of the land who permit for an income adopted that rule.

The CHAIRMAN. Do you think with that practice that there is a sufficient quantity of forest in Maine to probably meet the demand of the Maine mills for pulp wood?

Mr. JONES. Well, yes, and no. In our particular section there is. On the Androscoggin River, which the International Paper Company and the Berlin Mills Company have mills on, I doubt if they would have an unlimited supply of wood. The Berlin Mills Company are cutting under the forest regulations, but they are using the bulk of their cut for the lumber business and exporting from Canada the smaller wood for their pulp business. Should they abandon the lumber business, I think perhaps their supply would last for a great many years. They are very large owners of timber lands.

The CHAIRMAN. What is pulp wood worth with you now?

Mr. JONES. The price is based somewhat upon the size of the logs. As an illustration, a lumberman makes a cut of five or six million feet. In cutting his logs he has two marks for his cut. All his logs that are 10 inches and up at what we call the "top end" of the log he puts under one mark. His smaller logs, running from, say 7 up to the 10-inch size, he puts on another mark. His largest mark he sells to the sawmill operator for an average, I should judge, of about \$18 or \$19 a thousand feet. His smaller logs he sells to either pulp mills or box-board mills at prices varying from \$13 to \$15 or \$16 a thousand. We cut our own logs. They vary in cost and are liable to run from \$15 to \$18 or \$19, according to the size of the logs, and so forth. We are not operating very largely in connection with the lumber business, which we have abandoned this year, and perhaps it leaves us with a higher grade of logs than we otherwise would have.

The CHAIRMAN. What is the name of your company?

Mr. JONES. Katahdin Pulp and Paper Company.

The CHAIRMAN. You manufacture what?

Mr. JONES. Sulphite pulp and paper.

The CHAIRMAN. What is the capacity of your mill?

Mr. JONES. Forty tons daily.

The CHAIRMAN. What is sulphite worth now? I do not mean what are you willing to sell it for to some of these gentlemen. You claim to make a superior quality of sulphite, as I understand.

Mr. JONES. We try to make a high grade, yes, sir.

The CHAIRMAN. What is about the price of sulphite now?

Mr. JONES. I do not object to giving my price, because we only have one. Our price of sulphite to-day is \$2.10, delivered in Maine.

The CHAIRMAN. F. o. b. you mean?

Mr. JONES. No, sir; delivered at the paper mills. Two dollars and twenty cents for New England and the West.

The CHAIRMAN. Delivered?

Mr. JONES. Yes, sir.

The CHAIRMAN. You pay the freight?

Mr. JONES. We pay the freight, yes, sir; \$2.25 we get in some cases where we have a very high freight rate to encounter.

The CHAIRMAN. What would you say as to the condition which you would be in if the tariff were taken off of wood pulp, so that you would compete on even terms with Canadian wood pulp, and at the same time there was no export charge or regulation of the exportation of pulp wood from Canada?

Mr. JONES. Well, unless we could obtain a higher figure for sulphite than to-day's prices, we should undoubtedly go out of business.

The CHAIRMAN. Why would you want a higher figure than to-day's prices; how would that affect the question?

Mr. JONES. Perhaps I misunderstood your question.

The CHAIRMAN. What would be the effect if the tariff were taken off entirely from wood pulp?

Mr. JONES. I see now what you mean.

The CHAIRMAN. With free pulp wood.

Mr. JONES. I will answer it in this way: That should a corresponding reduction be made in the selling price equivalent to the duty, we should have to go out of business; and there undoubtedly would be, unless we could make it up in some other way, which I do not know of at the present time.

The CHAIRMAN. Do you estimate that it costs you very much more to manufacture wood pulp than it does the Canadian manufacturers, or have you gone into that?

Mr. JONES. I should say, yes, sir; it would. Of course, raw material is the principal factor. The Canadian wood does come cheaper to the mill. Their labor is somewhat less than ours. I do not see why they should not make it for less.

The CHAIRMAN. Can you see where we have forests enough in the United States to furnish the pulp-wood supply of the future without drawing on Canada?

Mr. JONES. You mean considering also the demand for lumber?

The CHAIRMAN. Certainly.

Mr. JONES. I do not think we have; no, sir. For all time.

The CHAIRMAN. The Province of Ontario now prohibits the exportation of pulp wood cut on the crown lands. Newfoundland does the same thing, I believe. The Province of Quebec makes a higher charge for wood cut on the crown lands that is to be exported. That being the case and the tendency in Canada in that direction, what would be your judgment as to the desirability of the people of the United States making some effort to get an opportunity at least to buy pulp wood in Canada without paying any excessive price for it over what it costs the local consumer? In other words, if we are going to be brought to the point where we have to have Canadian wood pulp, with a threat that the Canadian government may prevent it, as we now stand, what are we going to do about it?

Mr. JONES. I am giving my personal views in the matter, and I do not think there is much danger of Canada putting on any export duty beyond what they already have in Ontario. My idea of handling the situation is this, that it should be handled with Canada by treaty. Not as a tariff arrangement subject to the Republicans doing one

thing this year and the Democrats doing something else next year. I should say to Canada, "If you care to make a reciprocity proposition of this, we are willing to try that; we will admit your ground wood pulp free; we will make a reasonable discount or rebate on the duty on sulphite." I do not think the paper market ought to be disturbed. That would settle the matter with Canada, perhaps. Now, on the tariff proposition, on the importation of pulps and papers from Europe, barring, perhaps, some special papers which we do not care to manufacture in this country, and perhaps can not, I should increase the duty 100 per cent on all European pulp coming into this country, and I should let Canada in free to the extent that I have stated.

The CHAIRMAN. Why would you increase the duty on importations from Europe?

Mr. JONES. Because Europe is the greatest competitor that this country or Canada has to-day in the pulp business.

The CHAIRMAN. Isn't it true that Great Britain is getting to be largely dependent upon Canada for its wood pulp and pulp-wood supply?

Mr. JONES. No, sir.

The CHAIRMAN. Where do they get most of their wood pulp?

Mr. JONES. Entirely from the Continent. I do not believe there has been 1,000 tons of sulphite pulp sent to England from Canada in the past year or year and a half.

The CHAIRMAN. How about ground pulp?

Mr. JONES. Ground pulp—they get more or less of that from Canada—I think more from Newfoundland to England; but so far as the paper and sulphite end of it is concerned, they are not dependent upon Canada or this country at all. They can buy it cheaper from Europe than they can from us or Canada.

The CHAIRMAN. Don't they ship any paper from Canada to England?

Mr. JONES. I think a very little.

The CHAIRMAN. Where do they get their wood pulp from in England?

Mr. JONES. From the Continent; Norway and Sweden generally.

The CHAIRMAN. Have you gone into that question at all yourself?

Mr. JONES. Yes, sir; quite a good deal.

The CHAIRMAN. Do they get much of it from Germany?

Mr. JONES. Not of the ground wood. They get sulphite from Germany. The ground wood they get largely from Scandinavia.

The CHAIRMAN. Do you think there is any danger of competition in this country with Scandinavian ground wood or sulphite?

Mr. JONES. Not so much from the ground wood as from the sulphite. The sulphite is what will disturb us most. On ground wood I do not think the competition would injure us much.

The CHAIRMAN. Why should the competition on sulphite be injurious to the United States.

Mr. JONES. Because they produce it in such quantities that they use us for a dumping ground. If you don't mind, I can give you some figures on that.

The CHAIRMAN. We would be very glad to have them. I have had the Bureau of Statistics in Washington for a number of months

working on that subject for me, endeavoring to get all the available published statistics, which are not in very satisfactory shape.

Mr. JONES. I think that the figures that we have here have been worked out through the bureau of statistics which the sulphite manufacturers maintain.

The CHAIRMAN. Sulphite manufacturers in this country, do you mean?

Mr. JONES. Yes, sir; purely a bureau of statistics. We have no combination.

The CHAIRMAN. I understand it.

Mr. JONES. The total amount of sulphite imported from Europe to the ports of New York, Boston, Philadelphia, and Baltimore from January 1 to August 1 this year was 27,966 tons, practically 28,000 tons. From Canada, 11,254 tons only. I want to say right here that there is one mill in Canada which does not report to our bureau, but the amount shipped in by them is not very large.

The CHAIRMAN. Where are those figures obtained from, from the mills or from the customs officers, or from the importers themselves?

Mr. JONES. These importations from Europe are taken from the United States Government figures—that is, from the customs in each one of these ports—every manufacture.

The CHAIRMAN. I was under the impression that they did not keep them separate except by price values.

Mr. JONES. Not only price values, but there is a differentiation in the duty.

The CHAIRMAN. Based on price?

Mr. JONES. No, sir; the duty on unbleached—these figures are on unbleached sulphite.

The CHAIRMAN. There is no differentiation in the tariff between sulphite and soda, for instance?

Mr. JONES. No, sir; there has been no soda imported into this country.

The CHAIRMAN. How do you know?

Mr. JONES. I know from various sources. There is no importer that has brought any soda in. None of the mills have been using the product.

The CHAIRMAN. No soda fiber imported, then, at all?

Mr. JONES. No, sir. There is a very small quantity of sulphate soda.

The CHAIRMAN. Is there a difference between sulphate fiber and sulphite fiber?

Mr. JONES. A slight difference; not much, so that it is immaterial. The unbleached sulphate takes the place in paper making of sulphite.

The CHAIRMAN. Of course, the tariff description is chemical pulp.

Mr. JONES. Yes, sir.

The CHAIRMAN. So that all the chemical pulp that is imported practically is sulphite fiber.

Mr. JONES. Sulphite fiber; yes, sir—that is, a very small amount of the sulphate. Then it comes in as bleached and unbleached. These figures that I am giving you are unbleached. I have given you as the importations from Europe and Canada practically 39,230 tons. Now, all the mills reporting to our bureau have sold in the American market since the 1st day of January but 33,672 tons, as against 39,000 tons from Europe and Canada.

The CHAIRMAN. That would seem to indicate a shortage in the American market of sulphite.

Mr. JONES. Apparently, yes; on the face of it. But our mills have been operated on a 43 per cent basis since the 1st of January.

The CHAIRMAN. Why is it profitable to operate mills on a 43 per cent basis, instead of selling the sulphite that the paper manufacturers want, made here, and not in Scandinavia?

Mr. JONES. You mean that it might be well, perhaps, to run our mills at a loss so as to supply the demand?

The CHAIRMAN. I think it would be well to run your mills full instead of only 43 per cent, and let somebody else furnish the stuff.

Mr. JONES. We are unable to do it.

The CHAIRMAN. Unable or unwilling?

Mr. JONES. Well, both. The amount of pulp imported this year to August 1 over 1907 was about 4,000 tons; that is, 4,000 tons more this year than last year, 4,266 tons.

The CHAIRMAN. I suppose you base the figure upon which you estimate you can make sulphite at a profit largely upon the cost of pulp wood to you, or upon the actual figure you pay for pulp wood where you buy?

Mr. JONES. Yes, sir.

The CHAIRMAN. There has been, as I understand it, a considerable enhancement of price in pulp wood in the United States in the last couple of years. Pulp wood that you own you charge upon your books at the present market price, I suppose?

Mr. JONES. What it actually cost at the mills.

The CHAIRMAN. Of course, if you own the timber, you can not figure on what it actually costs you. There is no way of telling what it costs. You own a large share of your forest supply yourself, you say?

Mr. JONES. Yes, sir.

The CHAIRMAN. Where you cut that pulp wood how do you charge your mills with it?

Mr. JONES. We charge, for instance, if we are owners of this town and you of that, and we are cutting 2,000,000 to 3,000,000 logs from your town and are paying you \$2.50 per thousand feet for the privilege, or for the stumpage, as we call it, and we take 2,000,000 feet from your town, we charge to the actual cost of the wood \$2.50 for the value of the wood on the stump.

The CHAIRMAN. You charge the paper mills with the market price of the pulp wood that you cut from your own forests?

Mr. JONES. Yes, sir.

The CHAIRMAN. That market price has been considerably enhanced in the last year or so. The great majority of the wood-pulp manufacturers and the paper manufacturers, I presume, do not own extended forests; they are buyers of wood pulp. If we should come in open competition with Canada upon even terms, it would have a tendency to depreciate the value of the pulp wood in the United States, wouldn't it, and reduce the cost of your sulphite and wood pulp on your books?

Mr. JONES. Yes; it would surely have to come from somewhere—wood or labor.

The CHAIRMAN. Would you think it advisable, then, for our Government to enter into relations with the Canadian government by

which there might be free trade between the two countries on paper pulp and pulp wood and leave the duty on paper and sulphite, etc., coming from other countries?

MR. JONES. Yes, sir; but I do not think from my talks with some of the authorities in Canada that such an arrangement could be made unless Canada could have a greater protection from the importation of sulphite fiber than they are having to-day in this country.

THE CHAIRMAN. What do you mean by greater protection?

MR. JONES. Canada would insist, as I feel that we should, that the duty on sulphite imported from Europe should be at least 100 per cent greater than to-day.

THE CHAIRMAN. Do you think there is any hope of increasing the tariff duty on sulphite?

MR. JONES. There ought not to be any difficulty about it.

THE CHAIRMAN. If I was in the insurance business I would be willing to write insurance very cheaply on that subject.

MR. JONES. I do not think that you can to-day make a treaty with the Canadian government for free pulp into this country as against free wood, without more protection on their sulphite.

THE CHAIRMAN. Of course, as to what we can do, we do not undertake to determine. What I am trying to ascertain is that which we would like to do if we could.

MR. JONES. Yes, sir. I had a little more here that I would like to give you if you do not mind my taking the time.

THE CHAIRMAN. We would be glad to have you give us any information you can.

MR. JONES. I have a short paragraph I want to read you from the *World's Paper Trade Review*. This article is written by R. J. Dorenfeldt, civil engineer. I have a personal acquaintance with this gentleman, and he is a man that is authority on pulp and paper in Europe and is quite well known in this country. I have met him both here and on the other side.

Mr. Jones read the following from the *World's Paper Trade Review*, of London, of date February 28, 1908:

In the course of his remarks, Mr. Dorenfeldt said: "The aggregate annual production of sulphite cellulose in Europe will, from the end of this year or the beginning of next year, be about 1,600,000 tons, of which about 950,000 tons fall to the part of Scandinavia and the Russian and German Baltic provinces. There has lately been a very rapid increase in the output of sulphite cellulose in all the countries which border on the Baltic, and this development will probably continue in the coming years. For in those countries, where the rivers flow to the Baltic, there is a better supply of the raw material for making cellulose, the white pine (*pinus excelsa*) than in the rest of Europe. In any case, there is, because of the sparsity of the population, a far greater surplus for sale, and because the cellulose industry allows of the most efficient utilization of small and medium-sized logs, the building of new and the extension of old sulphite mills in the countries round the Baltic will most probably proceed in the future even more rapidly than in the past. To this result the circumstance will also contribute that increasing obstacles are placed in the way of sulphite mills in Germany on account of their pollution of the rivers. It must also be borne in mind that the increasing competition enforces such an increase of the size of the mills, that clear-sighted manufacturers find it necessary to build their mills by the sea, in order to be as much as possible independent both as to the supply of raw materials and the sale of the cellulose. That Norway and the Baltic countries—Sweden, Finland, Russia, and Germany, so far as Stettin—will continue the same increase of the production as in the last three to four years, say, an average of 100,000 tons cellulose annually, I feel therefore tolerably convinced."

The CHAIRMAN. You say there is 950,000 tons of sulphite manufactured in Scandinavia a year?

Mr. JONES. Yes, sir.

The CHAIRMAN. That would take about 1,900,000 cords of wood, wouldn't it? What are the figures on that?

Mr. JONES. Two cords of wood to a ton of sulphite.

The CHAIRMAN. How long will their forests stand that drain together with the drain of the lumber business?

Mr. JONES. They are practicing forestry over there. In fact, from all the information we can get on the subject, notwithstanding the enormous quantities of pulp produced by Germany, they have more and better forests to-day than they had twenty years ago.

The CHAIRMAN. This does not come from Germany.

Mr. JONES. This is from Scandinavia alone, but we have also a great deal of competition from Germany, which this man does not mention at all. I think it is a well-known fact that the forests in Russia and Finland, or Finland-Russia, they call it, are greater than anything we have on this side of the water.

The CHAIRMAN. Greater than the Canadian forests?

Mr. JONES. So far as the territory is concerned, I think, yes.

The CHAIRMAN. But the territory is quite restricted.

Mr. JONES. There is a pretty large territory in Russia.

The CHAIRMAN. Yes; Russia is a large country.

Mr. JONES. There is a great country there. I believe that the American market can absorb, and will absorb, all the wood products (pulp paper) of Canada and this country, and at the same time will maintain a fair market for our goods and fair wages for our workmen; but we can not stand, so far as the sulphite end of it is concerned, the European competition.

The CHAIRMAN. You are really afraid of Scandinavian competition in sulphite?

Mr. JONES. Yes, sir. It is a very serious matter with us.

The CHAIRMAN. Have you ever been over there?

Mr. JONES. I never have been in the pulp mills.

The CHAIRMAN. I mean investigating this question.

Mr. JONES. No, sir.

The CHAIRMAN. Do they get ample water power at the seashore?

Mr. JONES. The manufacture of sulphite is not so much dependent on the water power.

The CHAIRMAN. Not the same as ground wood?

Mr. JONES. No, sir. I presume they get some. I don't know as to the full particulars. They probably have cheap coal. Some sulphite making is operated wholly by steam successfully.

The CHAIRMAN. I should suppose, not knowing, that they did not have a cheap coal over there.

Mr. JONES. Yes.

The CHAIRMAN. It may become necessary for this committee to make a trip there.

Mr. JONES. Yes, I should be pleased to accompany you. I want to say this, that it is a matter which should be considered seriously.

The CHAIRMAN. Do you know how much sulphite there is being used in the United States now?

Mr. JONES. That is a pretty hard question. Do you mean the normal sales?

The CHAIRMAN. No, the amount that is being consumed.

Mr. JONES. I have those figures very closely.

The CHAIRMAN. We have figures that have just been compiled by the Bureau of the Census in the Agricultural Department. Total amount of wood used in the manufacture of sulphite in the United States last year was 2,059,496 cords.

Mr. JONES. How much in ground wood; have you those figures?

The CHAIRMAN. Yes, 1,361,302 cords; soda process, 541,462 cords, or a total of 3,962,660 cords for all processes.

Mr. JONES. It would be around two billion board feet, 2 cords to the thousand, if I figure correctly.

The CHAIRMAN. The total amount of wood pulp imported last year, which will be for the fiscal year of 1907, from Europe, was 63,283 tons; from Canada 149,827 tons. Of course the European was sulphite and the other mostly ground pulp.

Mr. JONES. Do you understand from those figures that 63,283 tons was all kinds of pulp imported from Europe this last year?

The CHAIRMAN. Yes, sir. All kinds.

Mr. JONES. The records at the ports of New York, Boston, Philadelphia and Baltimore show that there was 50,961 tons of unbleached sulphite alone imported, and my impression is that there is as much or more of the bleached as of the unbleached.

The CHAIRMAN. Evidently your impression is erroneous.

Mr. JONES. These figures are taken directly from the—

The CHAIRMAN. So are these. These are complete. These are figures taken from the returns of all of the customs officers.

Mr. JONES. That is, from Europe alone?

The CHAIRMAN. It is giving the quantity and value of wood pulp imported from 1902 to 1907. In 1907 the total quantity imported altogether was 213,110 tons, valued at \$6,348,857. The quantity imported from Europe was 63,283 tons, valued at \$3,118,585, and from North America, 149,827 tons, valued at \$3,230,272. While the amount imported from Europe was 63,000 tons and the amount imported from America was 149,000 tons, the valuation was about the same in the two places.

Mr. JONES. The importation from Canada includes the ground wood?

The CHAIRMAN. Certainly.

Mr. JONES. The importation from Europe would represent the chemical pulp only.

The CHAIRMAN. Practically sulphite?

Mr. JONES. Yes; bleached and unbleached.

The CHAIRMAN. I have just had the Department of the Treasury go through the customs books at these different collection points and gather for me the different grades of importations according to the tariff schedule under 2 cents a pound, between 2 and 2½ cents a pound, and so forth. That is the basis on which the tariff is collected. Of course, their figures as they return them to the Bureau of Statistics do not make that differentiation, but I wanted that. The Treasury Department has just collected that for me and has it complete now, I think, from all of the ports that bring in wood pulp, with one exception, and that is one of the ports on our Canadian boundary, and that probably is at my office at this time. They said it was com-

plete with that one exception. That we will have published in a short time probably.

Mr. JONES. I would like very much to see it.

The CHAIRMAN. That is the first time that any statistics have been gathered by the Government making the distinction between ground pulp and these other kinds of pulp by valuations. Of course, you get your figures as to sulphite, bleached and unbleached, not from the Government, unless you have somebody go to the collector's office and get them.

Mr. JONES. We do.

The CHAIRMAN. Because the collectors do not make returns that way to the Government.

Mr. JONES. We have some one go to the office and get these figures each month.

The CHAIRMAN. I assume we will have those correct absolutely.

Mr. JONES. The Government must know, must it not, as to whether that is bleached or unbleached fiber? The duty on the unbleached is 3.33 and the duty on bleached is 5.

The CHAIRMAN. The Government must know the difference.

Mr. JONES. They must know whether it is bleached or unbleached.

The CHAIRMAN. In making reports they do not report each item by itself. They bunch those things. I wanted these separated and they have gone over their collectors' books and separated this information for the benefit of this committee.

Mr. JONES. I wanted to emphasize this point with you, that while my particular mill is not dependent in any way upon Canada for wood, barring forest fires, I feel quite satisfied that we shall not be, so long as I live; that our mill will not be dependent on Canada for wood so long as I live or so long as I am able to attend the business—

The CHAIRMAN. In other words, that the available supply of pulp wood in the country tributary to your mill is sufficient—

Mr. JONES. Yes, sir.

The CHAIRMAN. To run your mill in perpetuity on the present basis?

Mr. JONES. Yes, sir. Now, on the other hand, I do know something about the sentiment in Canada. I have been there a good deal in the past few years and have met quite a number of the buyers that buy there, men in different parts of Canada, and I believe that should we remove the tariff from pulp and paper we would be more likely to have a prohibitive or an export duty put on pulp woods from Canada than if we kept on the tariff. And before that is done there should be, as I stated at first—this should be a matter of regulation by treaty with Canada.

Mr. RYAN. What, in your opinion, would be the effect of a prohibitory or an export duty on pulp wood?

Mr. JONES. I think that in some particular localities it would put our mills out of business. In fact, I know it would for a short time. It is no use for us to disguise the fact that we are dependent in some localities on Canada for wood. Now, what is the most practical method to perpetuate our supply? Not only in obtaining wood in Canada for the time being, but allowing our own forests to recuperate. There are certain sections of our country where I think the

forests are reproducing themselves to-day, on account of our ability to get wood from Canada. There are other sections where it is different. This thing should not be a question of politics, in my mind. It is not going to be a question of newspaper men, whether it be a penny newspaper or a 3-cent newspaper, against manufacturers; it is a question of protecting what we have got. There are millions and millions of money invested and thousands of men and their families employed, and in some localities it is all there is. When you wipe out the pulp men, you wipe out all the property that there is in that immediate vicinity. Now, how are we going to get at it for the best interests of all? I am not particularly interested in the west; I haven't any interests there, but the west should have free wood from Ontario. It is their natural basis of supply, isn't it, Mr. Sensenbrenner?

Mr. SENSENBRENNER. Yes; aside from what we have in our own country.

Mr. JONES. There is no reason why we should not have it from there. I believe some business arrangement can be made whereby it can be obtained without detriment to the newspaper publishers or the paper manufacturers. I am a protectionist clear up. I would protect the air that comes in from Canada if I could.

The CHAIRMAN. Do you think it is possible to get the New England people up to the point where they would favor a general reciprocal tariff relation with Canada?

Mr. JONES. Why, no; not all of them.

The CHAIRMAN. I mean the men who represent them in governmental affairs.

Mr. JONES. Well, I think so far as pulp and paper are concerned you could; yes, sir.

The CHAIRMAN. Do you think likely that Canada would enter into a treaty that confined itself to pulp and paper and pulp wood?

Mr. JONES. Well, I do not.

The CHAIRMAN. Of course this committee has no jurisdiction on the tariff question.

Mr. JONES. I understand we are just having a sort of friendly talk on this thing now.

The CHAIRMAN. It may make a recommendation possibly as to legislation or treaty for that matter.

Mr. JONES. I am throwing out my particular views broadcast. I do not know how they hit anybody. I hoped they might coincide with others.

The CHAIRMAN. We are trying to get opinions and information.

Mr. JONES. I tell our people in the east that we undoubtedly have got to face free lumber. I believe that the west and certain sections of this country will demand it. Don't you feel that way about it, Mr. Sensenbrenner?

Mr. SENSENBRENNER. I haven't given the lumber subject much thought.

The CHAIRMAN. We will put Mr. Sensenbrenner through the mill after a while.

Mr. JONES. I only wanted to know whether my ideas agreed with his along certain lines. I may be taking a very narrow view of it myself. But I do not believe, Mr. Chairman, that on pulp and paper

we should put Europe, our hardest competitor, on an equal basis with Canada, with which we might make some sort of a treaty that would be to our advantage.

The CHAIRMAN. On that point this suggestion might arise—no one would think it necessary to protect this country against European wheat, for instance. We have, I suppose, a great deal more forest in North America than they have in Europe, certainly a much larger proportion in reference to population, and probably in proportion to the consumption. And whether it is necessary to protect this country against European lumber or European products of lumber I have not gone into and I have no idea, but I did not suppose that was what the paper men feared half as much as they did Canadian competition.

Mr. JONES. I do not fear this Canadian competition so much, perhaps, as some others do. I believe that this market, as I have said, is large enough under normal conditions to absorb the entire product of Canada in the pulp line, ground wood pulp, and quite a large portion of its sulphite, if, on the other hand, Canada will make the right sort of a treaty or arrangement with us to give us wood from Quebec and Ontario. Our mills in this country have been forced to shut down during the past year to the extent of 50 or 60 per cent. Perhaps it might be fair for me to make this statement: Last year during the boom times a great many paper manufacturers became alarmed. They felt that they might not be able to get all the pulp they needed from this country and Canada, unnecessarily so, and they made large contracts for European pulp, which they have been taking in during this year. But, on the other hand, as I have read you there, the products there are increasing alarmingly, over 100,000 tons per annum. We have got to meet it. After they get through in England they are going to use us for a dumping ground. I know of a contract last week for sulphite that was sold in the northern part of New York at less than 2 cents per pound, and there are no men that I know of in this country to-day that can put that pulp at that point at that price without a very heavy loss.

Mr. RYAN. Is that foreign pulp?

Mr. JONES. Yes; foreign pulp.

Mr. RYAN. Are the mills that are using that foreign pulp principally Eastern mills?

Mr. JONES. East and west. Perhaps I have got something right here about that, that I got from my broker in pulp a day or two ago. He says, referring to pulp, "I know of a sale that was made in Kalamazoo of a very good grade of pulp, one that would compare very favorably with Hinckley"—that is one of our good mills, and they make good pulp—"at 197½ Baltimore. The rate from Baltimore to Kalamazoo being 16 cents, this makes a delivery price of 213½. I don't know of any mills making sulphite that can afford to deliver it at Kalamazoo at that price without losing money.

Mr. RYAN. At present?

Mr. JONES. Yes, sir.

The CHAIRMAN. You mean without breaking the market a little bit?

Mr. JONES. I mean without an actual loss at the mill. They have no fixed market price on sulphite.

The CHAIRMAN. We went into the subject of the cost of manufacturing sulphite quite extensively in our hearings. I don't know whether you have examined those or not.

Mr. JONES. I don't know, sir, but I think you will find the cost varies a good deal at different mills.

The CHAIRMAN. Yes; undoubtedly. I think there are some mills that make a very good profit.

Mr. JONES. I think if you find a mill that can produce sulphite at less than \$17 upset price over the cost of wood, I would like to see its books. Cost above cost of wood at less than \$17 a ton.

The CHAIRMAN. Of course, we do not expect to find in this investigation any mill men who make any money. Is there anything else that you wish to state?

Mr. JONES. I think not.

The CHAIRMAN. We are very much obliged to you. I think that is all this afternoon.

SEPTEMBER 16, 1908—9 a. m.

**STATEMENT OF MR. GEORGE A. WHITING, TAKEN AT HIS MILL
IN NEENAH, WIS.**

The CHAIRMAN. What is the Wisconsin Valley Improvement Company, of Wisconsin?

Mr. WHITING. It is a company organized for the purpose of improving water conditions for hydraulic purposes, for heading off freshets, and for making as uniform a flow as is possible for hydraulic purposes. Our authority and our rights are given in the pamphlet which I hand you.

Mr. RYAN. Are the members of it principally pulp men and sulphite men and paper manufacturers?

Mr. WHITING. I have a list right here. I have got the Government's estimate of this water back to 1887. I have been working at this proposition for over seventeen years in one way and another, until we finally, a year ago, succeeded in getting legislation where we work in connection with the State board of forestry. You will notice that our organization is a private organization, a company of individuals, and its duties are prescribed in this way—

The CHAIRMAN. You have a special charter, I see, from the State of Wisconsin.

Mr. WHITING. Yes.

The CHAIRMAN. Chapter 335 of the laws of Wisconsin of 1907, a special charter as the Wisconsin Valley Improvement Company.

Mr. WHITING. Yes. You will notice that we have the right of eminent domain. It is estimated there are about 1,200 of these lakes north of the center line of Lincoln County. These white places on the map that I show you, Twin Lakes, Vieux de Sert, Minocqua, Sand Lake, Eagle Chain, were our property when we went into this proposition. We have bought since then probably 4 billion feet of these lakes. I haven't my engineer's report here, but I have got this checked up. We have bought up these several lakes. We had at that time 2,600 million foot storage, as near as I can remember it, in these lakes. Since then we have bought the big St. Germaine, 200

million, another 1,000 million, another 180 million, another 150 million, another 300 million, another 150 million.

Mr. RYAN. They are supposed to contain that many cubic feet of water?

Mr. WHITING. That many cubic feet of water for storage purposes. There are a few rights upon these lakes that we have not succeeded in getting their final signatures, but we have got control of these lakes.

The CHAIRMAN. The main purpose of this Wisconsin Valley Improvement Company is to conserve the water supply, I take it?

Mr. WHITING. It is to conserve the water supply in unifying the flow for hydraulic purposes and heading off freshets. After they had taken the timber off of there, we would get freshets if we had not these lakes, that would wipe us off the map. I have always contended that the water supply, the power supply, was the best of the natural resources that we have got. It is ahead of the coal mine, because you dig coal out of a hole and it is not replenished, while the water comes down and is raised by the sun and goes back and is as nearly perpetual as possibly can be, unless some such conditions prevail as have this year, which has made a terrible drought throughout the country. You will notice that we are organized with the power of eminent domain, but we can not exercise that power until we receive the consent of the state board of forestry. The intent is to maintain the moisture there in order to assist reforestation, to head off the freshets as much as possible, and to keep as near uniform level of these lakes as possible. We can not draw those lakes up there to exceed 18 inches, I think, during the time of navigation. I mean a point 6 inches above the high water and 12 inches below. That is in order to maintain the beauty of the shore line. From the 15th of November until the next spring we can draw the entire water down to the dead head. In some of these lakes we draw from 48 to 60 inches off from that immense area of water that would naturally go over our dams in a freshet, and it has increased the value of the entire 614-foot fall of the Wisconsin River.

Mr. RYAN. That, of course, does not increase the maximum flow, does it?

Mr. WHITING. It makes a mean flow. The mean flow of the Wisconsin River, as given by the government report at Merrill, is 8 per cent more than the mean flow at Kaukauna, but the maximum and minimum flow of the Wisconsin River, the river being so erratic, as shown in these reports here, the extreme low-water flow at Stevens Point in 1887, he gives here low water dry year 1,512 cubic feet flow. This is the minimum. Ordinary low water, 2,160 cubic feet per second. Average water per year, 5,222. Extreme high water, 42,600. See what we are going against. You can see the river a mile wide. That was in 1887.

The CHAIRMAN. Do you know whether the Government in the Geological Department keeps a record of the extreme measurement of these rivers?

Mr. WHITING. They do; but they do not work out in practice. They have records at Madison and the hydrographic department at Washington has records, and I can furnish you those records. They are somewhere here.

The CHAIRMAN. We have those.

Mr. WHITING. The average precipitation for the years given of the headwaters of the Wisconsin River from observations taken at the following stations, Antigo, Crandon, North Crandon, Hefford Junction, Merrill, Keopenick, Tomahawk, Minocqua, the grand average was 30.87 inches. That was the water in 1907. The rainfall for 1907 was 23.16 inches. Now we have a drainage area on the Wisconsin River at its lowest point of power of 7,865 square miles. At the Wisconsin River Paper Company, which is practically centrally located on the river, we have 5,005 square miles of drainage area. It is a mathematical proposition for any hydraulic engineer to take this data, or any intelligent man, and figure out what the result of the dry weather is on powers that we have got to-day.

Mr. RYAN. Are there any of them right now seriously inconvenienced because they haven't got sufficient water?

Mr. WHITING. Facts are better than fiction. I will give you history.

The CHAIRMAN. You do not get, I take it, the full benefit of your service at this season of the year, on account of navigation.

Mr. WHITING. There is no navigation in the Wisconsin River.

The CHAIRMAN. They do not allow you to draw down the water on account of navigation at this season of the year to the same level that you can in the winter time.

Mr. WHITING. That is right. Then I would say another thing. At the mouth of Cranberry Lake we are just installing a dam; we are putting in cement dams up there and making them permanent; we are just installing a dam with, I think, twelve to fourteen foot rise where we put in slides to take the boats out of the lower lake into the lake above, at an expense of about \$20,000. That was part of our contract with the State, to make that stream navigable for pleasure boats.

The CHAIRMAN. In a general way the manufacture of ground wood pulp is absolutely dependent upon water power, isn't it?

Mr. WHITING. Yes. Here are our year's runs right here: January, 19,800—these are supposed to be low months—February, 19,150; March, 45,600, and April, 76,150. That is bundles of pulp, 40 pounds to the bundle.

Mr. RYAN. Ground in the mill here?

Mr. WHITING. Ground in our mill on the Wisconsin River. The biggest part of our business is on the Wisconsin River. May, 74,600; June, 60,700; July, 51,900, and August, 15,200.

The CHAIRMAN. That was last month.

Mr. WHITING. Yes. Up to the 13th of this month, 7,850.

The CHAIRMAN. Do I understand you to say that the amount is controlled entirely by the water supply?

Mr. WHITING. The amount of the pulp is controlled entirely by our water supply to reach our wheels for pulp purposes.

The CHAIRMAN. In April and May you had all the water you could use, I take it.

Mr. WHITING. And more.

The CHAIRMAN. You had all you could use?

Mr. WHITING. Yes.

The CHAIRMAN. So that then your mills were running at full capacity?

Mr. WHITING. Yes, and we were storing that pulp. Now we have to buy or close down in this present condition. Even with the bad

year of 1907, in September we made 49,500 and October we made 56,600.

The CHAIRMAN. The present drought is what would be called an extreme drought, I take it.

Mr. WHITING. Yes, sir. It is an extreme drought and something that I do not think has occurred since 1886. I haven't the data back to 1886 only as I get it from the Government report. Let me show you a normal year. We will take the year 1906: January we made 49,000; February, 41,400; March, 52,000; April, 69,000; May, 74,250; June, 68,600; July, 56,400; August, 55,000; September, 64,900; October, 54,600; November, 82,500, and December, 56,500.

Mr. RYAN. Why were the first two months of 1908, January and February, so exceptionally low.

Mr. WHITING. We had not precipitation. Nature did not furnish us with it.

Mr. RYAN. Were you able to draw water off from your storage up here?

The CHAIRMAN. In other words, was that falling off in January and February due to water supply, or was it due to the stoppage of the mills for other reasons?

Mr. WHITING. It was due to water supply.

The CHAIRMAN. In January and February?

Mr. WHITING. Yes.

Mr. RYAN. This year?

Mr. WHITING. Yes; it was due to water supply. I can give you the water every day, if necessary. Every day I get reports of the whole proposition here.

Mr. RYAN. It seems strange that it should go so very low in January and February of this year when you could let more water come down.

Mr. WHITING. We exhausted our water. We had not the amount of storage. Let me go back a little further. In 1907, when we were getting this legislation through the legislature, we had some unfriendly friends up there who blew out a couple of our dams and let out, I think, some 12 miles area of our water, and for that reason, of course, we had not that amount of water. Then another thing, we had not our system in as well as we had previous to that when we owned it before the State had anything to do with it. We are financed in this way—our stock can draw but 6 per cent. The railroad commission passes on our tolls, and we are allowed to charge toll at the rate of 6 per cent and the actual cost of maintaining this proposition, so that it would be an impossibility to make a stock-jobbing or profit-making institution out of this to exceed the 6 per cent of our capital stock and the actual cost of maintenance. They take our engineer's report and our secretary and treasurer's report and they have a hearing on a certain date and all water users and all parties are invited to appear, and if they have any objection to the tolls it is passed upon by the commission.

Mr. NORRIS. Is that toll per cubic foot passing a given point?

Mr. WHITING. It is toll per cubic foot for storage proposition.

Mr. RYAN. Your water that you had in storage last January and February was not of much use to you?

Mr. WHITING. Yes, sir; it was.

Mr. RYAN. If you didn't have any, would you have been compelled to close?

Mr. WHITING. Entirely; that is, so far as pulp making is concerned. We did not draw out of those storage basins to exceed, I think, 26,000 cubic feet of water a minute, where with the storage basins we have now we ought to be able, if we have any precipitation, to draw from 50 to 75 cubic feet of water a minute.

Mr. RYAN. January and February of 1908 were exceptionally bad months, were they?

Mr. WHITING. They were, and January and February of 1906 were exceptionally good because we had a rainy season all through the winter nearly. We did not get to exceed 75 per cent of our normal precipitation. In my judgment there is not a hydraulic engineer, whether it is a private engineer or a Government engineer, but what figures the run-off a great deal more than it will work out in practical use. It is a criticism that I have made to a great many thorough hydraulic engineers, that their estimates were too heavy. I don't know any more about hydraulic engineering than a horse does about his parentage, but I have been building dams and using water for twenty years and I know something about the practical end of it.

The CHAIRMAN. In a general way, from your observation and experience for many years in Wisconsin, do you think there has been any shortage or diminution in the rain on account of cutting off the forests?

Mr. WHITING. From the data at hand, I would hardly think so. I think there has been this, that we have got our freshets earlier, and I will explain this way, that when the forests were up there the snow would get into the roots under the trees and leaves and mulch and it would be June and July before it would get down, but now being exposed to the sun we get it quick, and of course coming into the reservoirs quick and we naturally get more than we would if it was held back in the springs or in the mulch.

The CHAIRMAN. Is most of that country that has been cut over and the pine forest cut out grown up with some kind of underbrush or new foresting, small stuff?

Mr. WHITING. They are reforesting parts of it and in other parts the growth of small stuff is very healthy and very vigorous—that is, wherever there is any show of moisture being maintained. My observation has not been back of the lakes to any extent.

The CHAIRMAN. Isn't it pretty well grown up with young stuff?

Mr. WHITING. No; I do not find it so. There is one peculiar thing about all this western country—I do not know that it is so much in other countries—but you let a windfall go through or a forest fire and the first thing that bobs up is a lot of poplars. Our state forester says that this seed has been lying probably for a century dormant, and the heat and exposure has brought a condition that propagates them and starts them to growth. After these poplar or these quicker-growing trees come up, their usefulness is simply in protecting the white pine that follows them, and in a few years the poplar dies out and the white pine comes up.

The CHAIRMAN. They shade the ground?

Mr. WHITING. They bring about another condition, with these seeds lying dormant in the ground so long they act simply as a mother hen that nests the white pine and it will come right up every time you get

rid of these poplar forests, and you will see the little white pine coming and often the poplar will get black and die and rot away and the pine will come up.

Mr. RYAN. Same as it was before?

Mr. WHITING. Yes. I am working right hand in glove with our state forester, Mr. Griffith. I think he is as thoroughly competent and as conscientious a man as there is in the business, and he is a great friend of Mr. Pinchot. You asked me a question regarding precipitation.

The CHAIRMAN. Just in a general way.

Mr. WHITING. There is the precipitation for the twelve years right there [referring to a table].

The CHAIRMAN. Mr. Whiting presents a pamphlet entitled "Wisconsin Valley Improvement Company," a record of its organization, its articles of incorporation and by-laws, the law enacted for its government, with a statement of its purposes:

WISCONSIN VALLEY IMPROVEMENT COMPANY.

[A record of its organization, its articles of incorporation and by-laws, the law enacted for its government, a statement of its purposes.]

INTRODUCTORY.

The importance of the Wisconsin River as a factor in the settlement of the northern part of Wisconsin and in the development industrially and otherwise of this large region has been long recognized. In early days the use of the stream as a highway for transporting logs and timber products was the most important. In later years, and especially since the discovery of improved methods of transmitting power electrically, its water powers have been recognized as at least of equal importance. To make the river most serviceable for both navigation and power uses necessitates the storing of its waters in seasons of floods for use in times of drought, so as to make the flow in the river as nearly uniform as possible. After many conferences, participated in by representatives from every county on the Wisconsin River north of Kilbourn City, a plan of action was unanimously agreed upon during the summer of 1906, and at a meeting held in the city of Wausau, Wis., on the 21st day of September, 1906, the following articles of organization were unanimously approved and adopted, and Messrs. George A. Whiting, Walter Alexander, R. B. Tweedy, Lewis M. Alexander, A. H. Reid, Neal Brown, H. R. Goggins, and G. D. Jones were requested to duly sign and acknowledge such articles, and these gentlemen, together with Messrs. Mart Hirzel, A. W. Shelton, and W. E. Brown, were appointed a committee to procure the enactment of a suitable law to enable the company to perform its labors and duties efficiently.

George A. Whiting presided at each of said conference meetings, and G. D. Jones acted as secretary.

ARTICLES OF INCORPORATION.

Know all men by these presents: That George A. Whiting, Walter Alexander, R. B. Tweedy, Lewis M. Alexander, A. H. Reid, Neal Brown, B. R. Goggins, and G. D. Jones, being all adult persons and residents of the State of Wisconsin, do make, sign, and acknowledge the following articles:

ARTICLE I.—Purposes.

Said parties hereby associate together for the purpose of forming a corporation under and pursuant to the statutes of the State of Wisconsin, and particularly chapter 86 of the Wisconsin statutes of 1893, as amended, for the following stated business and purposes, to wit:

To establish, create, maintain, and operate a system of water reservoirs located in, upon, or along the Wisconsin River at points north of the north line of townships 41, Vilas County, Wis., and in, upon, or along each, any, and every

direct or indirect tributary of the Wisconsin River that discharges into said river at any point north of the south line of Lincoln County in the State of Wisconsin for the purposes of producing as nearly a uniform flow of water as practicable in the Tomahawk and Wisconsin rivers throughout all seasons, by holding back and storing up in said reservoirs surplus water in times of great supply and gradually discharging the same in times of drought and scarcity, and thereby improving the navigation and usefulness of said Tomahawk and Wisconsin rivers and their tributaries throughout their entire length, for all other purposes for which the same may be legally used, and diminishing the injury by floods and freshets to property located along, upon, or across the said Tomahawk and Wisconsin rivers; to erect, construct, and maintain all such dams, sluiceways, locks, and other structures in, along, or across any and all such lakes, rivers, and creeks as may be necessary or reasonably convenient to accomplish the purposes aforesaid; to clean out, straighten, deepen, or otherwise improve any of said lakes, rivers, or creeks, and build and operate flooding dams in order to facilitate the ready flowing of water into said Tomahawk and Wisconsin rivers, and the driving, holding and handling of logs and other floatables in any such improved stream; to purchase, acquire, hold and exercise any and all franchises and powers heretofore granted, or which may hereafter be granted by the legislature of the State of Wisconsin, for the improvement in any manner, of any such streams and lakes; to collect and receive all tolls collectable by the terms of any franchise or power that may be acquired by it: to buy, acquire, hold, pledge and sell stock in any other corporation organized for the purpose of improving for navigation or other purposes the said Wisconsin River, or any of the said tributaries thereof above mentioned; to purchase, hold and mortgage or sell any and all real estate or personal property that may be necessary or reasonably convenient for use in accomplishing the general purposes hereinbefore specified; to exercise all powers of eminent domain that said corporation may at any time acquire and to do all other acts and carry on all other lines of business incidental to or reasonably convenient for the accomplishment of the general purposes hereinbefore stated.

ARTICLE II.—*Name and location.*

The name of such corporation shall be "Wisconsin Valley Improvement Company," and its location shall be at the city of Wausau, Wis.

ARTICLE III.—*Capital stock.*

The authorized capital stock of said corporation shall be \$100,000, the number of shares of said stock shall be 1,000, and the amount of each share shall be \$100.

ARTICLE IV.—*Officers.*

The general officers of said corporation shall be a president, vice-president, secretary and treasurer, and the number of directors shall be seven. The directors shall be elected annually by the stockholders and the general officers shall be elected annually by the board of directors, at such time or times respectively as shall be appointed by the by-laws of the corporation. The offices of secretary and treasurer may be held by one person. The board of directors shall have power to create and fill at their pleasure such other minor offices as may be found necessary. No compensation shall be paid to a director except for special services.

ARTICLE V.—*Duties of officers.*

The principal duties of the general officers shall be as follows:

The president shall preside at all meetings of the stockholders and of the board of directors and shall have all the power and perform all the duties usually incident to the office of president of a corporation, and shall have such further powers and duties as may be prescribed by the by-laws or board of directors.

The vice-president shall, in the absence of the president, or in case of a vacancy in that office, perform the duties and have the powers of the president.

The secretary shall keep a record of the proceedings of the meetings of the stockholders and of the directors; keep a record of the capital stock and transfers and assignments thereof; shall have the custody of the corporate seal, and

shall perform such other duties as are usually incident to the office of secretary and such as may be imposed by the by-laws or the board of directors.

The treasurer shall be the custodian of the moneys of the corporation, and shall disburse the same as he shall be authorized by the by-laws or board of directors. He shall annually report at the annual meeting of the stockholders and as often as required by the board of directors the financial condition of the corporation, which report shall set forth the nature and amount of business transacted during the year. He shall keep full and accurate account of the moneys of the corporation, and perform such other duties as are usually incident to his office.

ARTICLE VI.—*Members or stockholders.*

Persons appearing by the stock record of said corporation as holding stock therein shall be members thereof and none others.

No subscription to, and no transfer of, any capital stock of said corporation shall be accepted or be valid unless by the contract of subscription or transfer the same shall be made upon the express condition that this corporation shall have at all times the right, at the option of its board of directors, to purchase from the stockholder, his personal representatives or assigns, the whole or a part of such holder's stock in said corporation at a price equal to the par value thereof, such option to be exercisable when any of the following conditions arise:

(a) In case any stockholder shall not be, or shall cease to be either an owner or a lessee of a water power benefited or capable of being benefited by this corporation's works, or a person in charge and control of such water power so as to stand in place of the owner thereof in some capacity, and

(b) In case any stockholder shall hold a greater proportion of all of the outstanding capital stock of this corporation than the cubic foot storage fall of the water power so owned, leased or represented by him and capable of being benefited as above mentioned shall bear to the sum of the cubic foot storage fall of all of such water powers on the Wisconsin and Tomahawk rivers between the headwaters thereof and the foot of the rapids at Kilbourn City, Wis., excluding all undeveloped water powers not capable of developing a theoretical 10-foot head, or more, in which event this corporation shall have the right to purchase only the excess of such proportion of the stock held by such stockholder.

(c) In case any such owner, lessee or representative not then holding any of the capital stock of this corporation or not then holding his full proportion of the same in accordance with the cubic foot storage fall of his water power as above set forth shall apply to the board of directors to purchase such additional stock as shall bring his stock holdings up to such proportion, it shall be the duty of such board of directors and they shall be authorized to purchase pursuant to the option aforesaid from the stockholders described in subdivision (a) above, or if there be none such then from those described in subdivision (b) and resell to such applicant a sufficient amount to correct any such disproportion. In computing the proportion aforesaid all the owners, lessees, and other representatives of each water power shall be treated as a unit and the board of directors shall be empowered to determine such proportion. The "cubic foot storage fall" of each water power shall be determined by multiplying the height of the head of water that may be obtained by proper development of such water power by the storage capacity, expressed in cubic feet, of the reservoirs of the corporation available for use in-benefiting such power. The capacities of reservoirs shall be taken to be the amount of water available to be stored and drawn from such reservoirs by the corporation's works. It shall be the duty of the board of directors to call to their assistance disinterested competent hydraulic engineers to determine such cubic foot storage fall of each power, unless they unanimously agree on the amount.

Notice of the option aforesaid shall appear on the face of every stock certificate issued by the corporation. It shall be the duty of the board of directors by the exercise of the powers and option above mentioned, to maintain the distribution of the capital stock of the said corporation among all the stockholders as nearly as practicable in proportion to the cubic foot storage fall of the water powers as above outlined.

ARTICLE VII.—*First meeting of stock subscribers.*

The first meeting of the subscribers to the capital stock of said corporation shall be called by the signers of the articles as soon as, but not before, a subscription to the capital stock of said corporation aggregating 70 per cent of the

authorized capital stock, each subscription to be in proportion to the cubic foot storage fall of the water power represented, shall be obtained from the owners, lessees or other representatives of the water powers aforesaid of the Tomahawk and Wisconsin rivers above the foot of the rapids at Kilbourn City, Wis. In determining when such subscriptions shall have been received, only undeveloped water powers capable of developing a 10 foot or greater head and developed powers of any head shall be considered. Such first meeting shall be held at such convenient point in the Wisconsin River valley as shall be appointed by the signers of the articles. At least five, and not more than ten, days' notice by mail shall be given to each stock subscriber of the time and place of such meeting.

ARTICLE VIII.—*Tolls and charges.*

It shall be the duty of the board of directors to so fix, determine and charge tolls, fees or other charges laid or collected for the benefits conferred on water power owners by the works of said corporation, that not more than sufficient funds shall be collected to pay an annual dividend of the capital stock paid in of 6 per cent after paying all the costs of operating and maintaining the system of reservoirs and other works of the corporation, not including, however, the cost of any betterment or extension of the system of works or reservoirs. All charges for benefits conferred on owners, lessees, or other representatives of water powers shall be made pro rata in accordance with the cubic foot storage fall of all operated water powers benefited. In case any particular water power shall be used by more than one person such fees, tolls, or charges shall be payable by the person or persons receiving the benefit and in proportion to the benefit received.

ARTICLE IX.—*Use of reservoirs.*

The board of directors shall so manage and operate the works of the corporation that the reservoirs tributary to each of said rivers shall be used primarily to serve to best advantage the water powers on the same stream and the use of all reservoirs shall be so managed as to equitably and proportionally benefit each water power on the same stream as compared with the others. This article shall not be amended except by a vote in favor thereof of at least five-sixths of all outstanding capital stock.

ARTICLE X.—*Removal of officers.*

Any director or other officer of the corporation who shall either intentionally or by reason of lack of reasonable attention and consideration violate any of his duties enjoined upon him by these articles shall be subject to removal from office by any court of general jurisdiction, otherwise having jurisdiction of the action in an action in equity, upon the complaint of any person aggrieved.

In witness whereof the parties have hereunto subscribed their names this 21st day of September, 1906.

GEO. A. WHITING.
WALTER ALEXANDER.
R. B. TWEEDY.
LEWIS M. ALEXANDER.
A. H. REID.
NEAL BROWN.
B. R. GOGGINS.
G. D. JONES.

In presence of—
MARGARET RYAN,
JOHN L. SELL.

ACKNOWLEDGMENT.

STATE OF WISCONSIN, *Marathon County, ss.*

Personally came before me this 21st day of September, 1906, the above named, Geo. A. Whiting, Walter Alexander, R. B. Tweedy, Lewis M. Alexander, A. H. Reid, Neal Brown, B. R. Goggins, and G. D. Jones, to me known to be the persons who executed the foregoing articles of incorporation, and they severally acknowledged the execution of said articles for the uses and purposes therein stated.

Witness my hand and official seal. My notarial commission expires April 12, 1908.

MARGARET RYAN,
Notary Public, Wisconsin.

ACT OF LEGISLATURE.

The committee appointed to procure the enactment of a suitable law to entitle the company to perform its duties and labors officially, prepared and proposed a measure for presentation to the legislature of Wisconsin at the 1907 session. The measure was important, and was given very careful consideration by the legislature, and on June 22, 1907, chapter 335 of the laws of Wisconsin for 1907 was duly approved by the governor, and was published June 24, 1907, and is as follows:

LAWS OF WISCONSIN 1907, CHAPTER 335.

AN ACT To authorize Wisconsin Valley Improvement Company to construct, acquire, and maintain a system of water reservoirs located on the tributaries of the Wisconsin River north of the south line of township 34 north, for the purpose of producing a uniform flow of water in the Wisconsin River and its said tributaries, and thereby improving the navigation and other uses of said streams and diminishing the injury to property both public and private.

The people of the State of Wisconsin, represented in senate and assembly, do enact as follows:

SECTION 1. (*Location of reservoirs, acquisition and protection of other franchises, Eagle River to be kept navigable; tolls.*)—Subject to the supervision and control hereinafter provided for, authority is hereby granted unto Wisconsin Valley Improvement Company, in order to promote the purposes hereinafter set forth, to create, construct, acquire, maintain, and operate a system of water reservoirs located in or along the Wisconsin River at points north of township 40 north, of range 10 east, and in or along any or all of the direct or indirect tributaries of the Wisconsin River that discharge into said river at any point north of the south line of township 34 north, in this State, excepting that part of the Eagle River and lakes lying between the point where Eagle River enters Cranberry Lake, in section 31, township 40 north, of range 11 east, and the Wisconsin River, and for that purpose said grantee may construct, acquire, and maintain all such dams, booms, sluiceways, locks, and other structures in, along, or across any and all of said tributaries, not above excepted, and the said portion of the Wisconsin River, as may be necessary or reasonably convenient to accomplish the purposes of this grant, and may clean out, straighten, deepen, or otherwise improve any of said tributaries in order to improve the navigation thereof and of said Wisconsin River and prevent injury to property bordering on said waters. All franchises, other than corporate franchises, and all riparian rights and rights of flowage, either perfected or inchoate, acquired by purchase or grant, by any person or by any corporation organized to improve the navigation for any purpose, of either of said Wisconsin or Tomahawk rivers or any of their tributaries, not above excepted, shall be and hereby are made assignable to the Wisconsin Valley Improvement Company, and shall be of the same force and effect in the possession and ownership of such assignee to accomplish the purpose of this act as the same may be before assignment to accomplish their original purpose. But this act shall not amend or repeal chapter 532 of the laws of 1887, nor chapter 252 of the laws of 1889, nor chapter 483 of the laws of 1905, nor chapter 26 of the laws of 1903, nor any amendment thereof, nor abridge the rights, powers, or duties conferred by said acts, nor authorize the taking by the Wisconsin Valley Improvement Company, by the power of eminent domain, of any property used under or pursuant to said acts nor any other property devoted to public uses, except that the dam authorized by and now maintained under said chapter 532 of the laws of 1887 may be raised, or a new dam or dams, which are hereby authorized, may be constructed and maintained in and across the Eagle River between Long and Cranberry lakes at any convenient point or points in townships 39 and 40 north, of range 11 east, so as to raise and hold the water in Long Lake aforesaid 6 inches, and no more, higher than the high-water mark to which the water has been customarily raised and held by means of said present dam; provided, however, that between May 1 and the succeeding November 1 of each year the waters shall not be drawn down in Long Lake more than 18 inches below said present high-water mark as established by said dam now constructed and maintained; and provided further, that said Wisconsin Valley Improvement Company shall prior to June 1, 1909, by such dam or dams and by locks, marine slides, or other safe and convenient means, make and thereafter maintain the Eagle River between said Long and Cranberry lakes navigable for the safe and convenient passage of boats of all

kinds and sizes up to and including boats 50 feet in length and 12 foot beam and drawing 5 feet of water. Said Wisconsin Valley Improvement Company shall have the right to charge and collect reasonable and uniform tolls for the passage of boats through and over said works proportioned to the size of the boat, not, however, exceeding in the aggregate the actual cost of the care, maintenance, and operation of said locks, marine slides, or other means of passage.

SEC. 2. (*Purposes of reservoirs.*)—The said authority is granted for the purpose of producing as nearly a uniform flow of water as practicable in the Wisconsin and Tomahawk rivers through all seasons by holding back and storing up in said reservoirs the surplus water in times of great supply, and discharging the same in times of drought and a scarcity of water, and thereby, and by other means, improving the navigation of said Wisconsin and Tomahawk rivers throughout their entire length for boats, barges, and other water craft, and for the running, driving, rafting, booming, storing, sorting, and delivering of logs, timber and lumber, and other forest products, and for the purpose of improving the usefulness of said streams for all public purposes, and of diminishing the damage and injury by floods and freshets to property, both public and private, located along said waters. It shall be the duty of said Wisconsin Valley Improvement Company to so manage, operate, and maintain all of its said reservoirs and other works that the purposes aforesaid shall be accomplished to the greatest practicable extent and so that as nearly a uniform flow of water as practicable shall be maintained at all times and at all points on said Wisconsin and Tomahawk rivers, and during the times when it may be found to be impracticable to maintain at the same time such uniform flow in the Wisconsin River, both below the north line of Lincoln County and above the same line, the portions of said streams above said line shall be given preference.

SEC. 3. (*Condemnation proceedings; state lands.*)—For the purpose of creating, acquiring, maintaining, and operating the dams and other works, authorized as aforesaid, and subject to the supervision and control hereinafter provided for, the Wisconsin Valley Improvement Company, excepting as herein otherwise excepted or provided, is hereby authorized to take and use any lands, riparian, or other rights, that may be required for the creation, construction, and maintenance of any and all reservoirs, dams, and other structures and improvements that may be necessary to accomplish the purposes of this act, and whenever it can not agree with the owner or owners of any such required lands, or other property, for the purchase thereof and for the compensation to be paid therefor, the said Wisconsin Valley Improvement Company may acquire title to any such lands and other property above specified, or the right to use same for said purposes, by the exercise of the power of eminent domain under and in pursuance of sections 1777a, 1777b, 1777c, and 1777d of the Wisconsin statutes of 1898 and the laws amendatory thereof and supplemental thereto, but the said company shall have no right to take or enter into possession or overflow any of the property condemned until it shall have first paid in the manner provided by section 1777c the damages awarded.

And in case the possession or use of any such property shall be obtained by said Wisconsin Valley Improvement Company before acquiring the title thereto or the right to use thereof by purchase or condemnation, the owner or owners of the same property shall have the same right to institute proceedings for condemnation thereof and ascertainment of damages to be paid, as is granted by the aforesaid statutes relating to the exercise of eminent domain. In case any lands of the State of Wisconsin be required to be taken or overflowed for any of the purposes of this act the railroad commission of Wisconsin shall appraise and fix the damage to be caused by such taking or overflow, and the amount thereof shall be paid into the state treasury by the Wisconsin Valley Improvement Company before the taking or overflow shall occur.

SEC. 4. (*Tolls secured by license, other companies taxable therewith; railroad commission to regulate.*)—In case said Wisconsin Valley Improvement Company shall improve any navigable tributary of the Wisconsin River not herein excepted or shall acquire the improvements or the control of the improvements of any river improvement company already operating on such stream and shall so keep in repair and operate the works as to render the driving of logs and other floatables to the mouth of such tributary reasonably practicable and certain, it may charge and collect reasonable and uniform tolls upon all such logs, timber, and other floatables driven or floated on said stream, and shall have all of the rights and remedies granted to river improvement companies by section 1777 of the Wisconsin statutes, and all amendments thereof, including the right of lien therein provided for, and shall be charged with all the duties and obliga-

tions imposed upon such river improvement companies under like circumstances.

When said Wisconsin Valley Improvement Company shall have created or acquired and maintained in successful operation water reservoirs in accordance with this act of a capacity sufficient to store up in times of abundance and retain and discharge in times of scarcity 2,000,000,000 cubic feet of water that would not be so stored up and retained by nature, it shall, subject to the supervision and control hereinafter provided for, be entitled to charge, collect, and receive reasonable and uniform tolls from the owner or owners or lessee or lessees of each and every improved and operated water power located upon the Wisconsin River, or any tributaries thereof, below any said reservoirs and benefited thereby, but not exceeding in the aggregate of all its revenues sufficient to pay all reasonable costs of operation and maintenance and a net annual return of 6 per cent on cash capital actually paid in on stock subscriptions to the grantee. Said tolls shall be semiannually fixed, ascertained, and determined by the railroad commission of Wisconsin on or about the 1st day of July and the 1st day of January of each year, for the six months' period preceding each of said dates. Said tolls shall be fixed in proportion to the benefits conferred by the reservoir system upon each of the improved and operated water powers aforesaid. It shall be the duty of the grantee to employ competent hydraulic engineers to be selected by the railroad commission of Wisconsin to assist in determining the tolls to be charged as aforesaid, and the expense thereof shall be treated as a part of the cost of maintenance and operation of said works. If any such improved water power be operated by a lessee or lessees under lease or contract made prior to the enactment and publication of this act, then such lessee or lessees shall be chargeable with the payment of such tolls; otherwise the same shall be paid by the owner or owners of the water power. Each water power liable to tolls as above provided, which shall be operated two months or more during any six months' toll period, shall be subject to tolls for the whole of the same period; otherwise no tolls for that period shall be chargeable.

SEC. 5. (Railroad commission, semiannual reports to; hearings on tolls; appeals from. Tolls, use and enforcement of.)—On or before June 15 and December 15 of each year said Wisconsin Valley Improvement Company shall lay before the railroad commission of Wisconsin a statement showing all expenditures made or necessary to be made for the next six months' period next preceding July 1 and January 1, respectively, of each year, for maintenance and operation of such reservoir system, all capital stock of said company issued and then outstanding, the cash capital actually paid in, the storage capacity and location of each reservoir, and all reports and data obtained from engineers employed as provided in section 4 of this act, and such other information and statements as the commission shall require, together with a recommendation of the amount of tolls necessary to pay such cost of maintenance and operation and a net return of 6 per cent per annum on the capital invested, and a recommendation as to the apportionment thereof against the owners or operators of improved powers, in accordance with said section 4. The railroad commission shall thereupon give to each water-power operator proposed to be charged with tolls ten days' notice by mail of the amount of tolls recommended to be charged against him and of the time when and place where the railroad commission will hear objections to the proposed tolls. The railroad commission shall at the time appointed hear all objections made and may take evidence and make or cause to be made independent investigation of the validity of the same, and may adjourn from time to time, and shall, as soon as practicable, on or about July 1 and January 1 of each year, determine and certify the amount of tolls to be collected from each water-power operator for the period under consideration, and such tolls shall thereupon be due and payable to the Wisconsin Valley Improvement Company.

Any person in interest being dissatisfied with any order of the commission authorized to be made under this act may commence an action in the circuit court of the county where the property affected is located, against the commission as defendant, to vacate and set aside any such order within sixty days from the date of the mailing to such person of a copy of such order by the commission, on the ground that such order is unlawful or unreasonable; in which case the complaint shall be served with the summons. The commission shall immediately notify the said company by mail of the service of said complaint. Within twenty days after the mailing of such notice to said company the said company or said commission shall file its answer to said complaint, and said action shall be at issue and stand ready for trial the same as any other action.

In all trials under this section the burden of proof shall be upon the plaintiff to show by clear and satisfactory evidence that the order of the commission

complained of is unlawful or unreasonable, as the case may be. Every party to said action, within sixty days after the service of a copy of the order of judgment of the circuit court, may appeal to the supreme court.

No tolls shall be levied or used to pay for any part of the original construction or purchase or betterment of the reservoir system. The amount of such tolls shall be a lien upon the water power, dam, franchises, and flowage rights of the person or corporation chargeable with such tolls, and in case such tolls shall not be paid when due the person or corporation entitled to collect the same shall be entitled to sue for and collect the same by an action at law or by a suit in equity for the foreclosure and enforcement of said lien, and for sale of the property affected thereby pursuant to such judgment of foreclosure.

SEC. 6.—(Forestry board to regulate constructions and flow. Railroad commission's approval of stock issue. Resources for cost and maintenance.)—No dam or reservoir not now in existence or heretofore authorized shall be constructed or created until the plan therefor, showing the form and location of the dam and a description of the lands to be overflowed thereby, be first submitted to the State board of forestry and approved thereby, after first giving reasonable notice and opportunity to be heard, to all persons interested, by publication in one or more newspapers most likely to give such notice, or such other notice as the board shall deem advisable, nor shall any petition be filed for the condemnation of any property for the purposes of this act without first having attached thereto the approval in writing of said board. Said board shall cause the height to which the water may be raised by any dam to be marked by permanent monuments and bench marks and shall have supervision and control of the time and extent of the drawing of water from the reservoirs and the power to compel the maintenance of all reservoirs established. They shall have authority to employ, at the expense of said improvement company, hydraulic engineers and other persons to assist them in obtaining the information necessary to a proper discharge of their duties, such expense to be treated as part of the cost of constructing or maintenance and operation of the reservoir system. No capital stock of said improvement company shall be issued until the proposed issue thereof shall have been submitted to the railroad commission of Wisconsin and said commission shall have ascertained, determined, and certified that the proposed issue will be in consideration of money or labor or property estimated at its true money value actually received by said company, equal to the par value thereof, and it shall be the duty of the said commission to act promptly on any such proposition submitted. The money received by said company upon account of capital stock shall be used only in payment of the original cost of purchase, construction, or betterment of the reservoir system and of the work preliminary thereto and necessary to prepare for or to determine upon the same, and all tolls collected as hereinbefore authorized shall be applied only to the payment of cost of maintenance and operation of the system and payment of the net return on capital above provided for, to the end that the capital stock shall be maintained at par value at all times.

SEC. 7. (Fishways, free passage of logs, etc.)—All dams erected or acquired and maintained by the grantee shall be subject to all of the requirements of the statutes now in effect, and all that may be hereafter enacted relating to the providing of good and sufficient fishways in said dams, and shall be equipped with all necessary slides, chutes, guide booms, and pliers for the passage of logs and timber over or through the same.

SEC. 8. (This act a public act.)—This act is hereby declared to be a public act and for the accomplishment of public purposes, and shall be favorably construed to the accomplishment of said purpose.

SEC. 9. (Repeal and amendment reserved; time for completion; State may acquire.)—The right is hereby reserved to the legislature to repeal or amend this act at any time; in case the Wisconsin Valley Improvement Company shall not by the 1st day of January, 1909, have in operation reservoirs of the storage capacity of at least 2,000,000,000 cubic feet of water, then the rights and privileges granted by this act shall cease. The State of Wisconsin shall have the right at any time whenever it may have the constitutional power, to take over to itself and become the owner of all reservoirs and other works and property acquired by the Wisconsin Valley Improvement Company, pursuant to this act, by paying therefor the cash capital actually paid on the capital stock of said company theretofore lawfully issued and outstanding or the actual value of the physical properties so taken over and without any allowance for franchises or good will of the business, and if such actual value can not be agreed upon

between the State and such owner, then the same shall be determined by the railroad commission of Wisconsin.

SEC. 10. This act shall take effect and be in force from and after its passage and publication.

Approved June 22, 1907.

MEETINGS.

NOTICE OF FIRST STOCKHOLDERS' MEETING.

Immediately following the passage and publication of said chapter 385, notice was duly given to the signers of the articles of organization of the Wisconsin Valley Improvement Company and to all parties who had subscribed for the stock in that company, that meetings would be held in Wausau July 9, 1907, and the following is a copy of said notice to stockholders:

"To the stockholders of the Wisconsin Valley Improvement Company.

"GENTLEMEN: As all the requirements relative to the permanent organization of the Wisconsin Valley Improvement Company, including the stock subscriptions for the stock of said company, have been fully complied with, there will be a meeting of the stockholders of the company at the office of Hurley & Jones, in Wausau, Wis., on Tuesday, July 9, 1907, at 2 o'clock p. m., for the purpose of completing the organization of said company, and especially for the purpose of electing a board of directors, and adopting by-laws for the government of the company. A full attendance of the stockholders is desired, as there are many matters of importance that should be considered at this meeting. It is expected that there will be a full discussion at this meeting as to the policy which the company should adopt relative to procuring new reservoirs.

"This notice is given by the direction of the incorporators.

"Dated this 1st day of July, 1907.

"G. D. JONES, *Secretary.*"

INCORPORATORS' MEETING.

On July 9 said meetings were duly held. All of the incorporators were present in person or by proxy, and at their meeting which was first convened the following resolution was unanimously adopted:

"Resolved, by the signers of the articles of incorporation of Wisconsin Valley Improvement Company, that the stock subscriptions heretofore made to the capital stock of said company be now received, subject to all of the conditions and the option contained in the articles of organization."

ACCEPTANCE OF STOCK.

The stock subscriptions for stock in the Wisconsin Valley Improvement Company were presented, and on motion unanimously carried were accepted on condition that the same should be subject to the condition and option contained in the articles of organization, and the secretary was directed to immediately turn over to the stock subscribers all papers, documents, and records of the company.

STOCKHOLDERS' MEETING.

The first meeting of the subscribers to the capital stock of the company was then held, pursuant to the notice above given, and it was found that all such subscribers were present and represented, either in person or by proxy.

Neal Brown was chosen chairman of this meeting and G. D. Jones secretary.

On motion, unanimously carried, the following resolution was adopted:

"Resolved, That the terms and conditions imposed upon the stock subscribers by the resolution adopted by the signers of the articles at this date accepting the stock subscriptions presented by such signers be, and the same are hereby, accepted by the stock subscribers."

Thereupon the following by-laws were unanimously adopted as the by-laws of this corporation:

BY-LAWS.

ARTICLE I.—*Annual stockholders' meeting.*

The regular annual meeting of the stockholders shall be held at the office of the corporation at Wausau, Marathon County, Wis., on the second Tuesday of

May of each year, at 3 o'clock p. m. Such meeting may be adjourned from time to time by those in attendance. The secretary shall give to each stockholder at his or her address, as it appears upon the records of the corporation, written notice by mail or otherwise of the annual stockholders' meeting, not less than five nor more than twenty days before the time fixed therefor each year.

ART. II.—*Special stockholders' meeting.*

Special meetings of the stockholders may be called at any time by the president or board of directors, and the president shall call such meeting whenever requested in writing by a majority of the stockholders. The secretary shall give written notice by mail or otherwise to all stockholders of all such special meetings not less than five days before the time fixed therefor, but such special meetings may be held without previous notice if all stockholders are present and consent thereto. All stockholders' meetings must be held within the State of Wisconsin.

ART. III.—*Annual directors' meeting.*

The annual meeting of the board of directors shall be held at the office of the company immediately at the close of the annual stockholders' meeting, but in case there be not then present a quorum of the newly elected board, those present may adjourn the meeting from time to time until it can be held. At such meetings the directors shall elect the general officers of the company.

ART. IV.—*Special directors' meetings.*

Special meetings of the board of directors may be called by the president, and he shall call such special meeting whenever requested by any two of the directors. Notice of such special meetings shall be given in writing by the secretary by mail or otherwise to each of the directors at least three days prior to the meeting, but a special directors' meeting may be held at any time and place when all the directors are present or consent thereto.

ART. V.—*Proxies.*

Every stockholder may be represented and may vote by proxy at each and every meeting of the stockholders, but powers of attorney to act as such proxy shall be in writing and shall be filed with the secretary.

ART. VI.—*Quorum.*

A majority in amount of all the stock outstanding shall constitute a quorum of the stockholders. A majority in number of the members of the board shall constitute a quorum of the board of directors.

ART. VII.—*Authority to directors in reference to real estate.*

The board of directors are hereby authorized to purchase, sell, or mortgage any real estate or personal property for or on behalf of this corporation, for such consideration as shall to the board seem fit without any resolution or further action of the stockholders, and consent is hereby given by the stockholders to the making of any such purchase, sale, or mortgage. It shall be the duty of the president and secretary to execute all necessary instruments to accomplish said purpose whenever directed by resolution duly adopted by the board of directors.

ART. VIII.—*Duties of directors.*

The board of directors shall have general control, supervision, and direction of the business affairs of the corporation. The board may choose such officers and agents of the company in addition to the general officers as they may deem necessary, and may fix the salaries and prescribe the duties of all officers and agents, both general and special.

ART. IX.—Stock certificates.

Stock certificates shall be issued to each stockholder as soon as a full share or any number of shares shall be fully paid for. Each stock certificate shall be in the following form:

[Incorporated under the laws of Wisconsin.]

No. _____ shares.

WISCONSIN VALLEY IMPROVEMENT COMPANY, WAUSAU, WIS.

[Capital stock, \$100,000.]

This certifies that _____ is the owner of _____ shares of the capital stock of Wisconsin Valley Improvement Company, fully paid and nonassessable, subject, however, to the option and conditions contained in Article VI of the Articles of Organization of said company, and transferable only on the books of the corporation in person or by attorney on surrender of this certificate.

In witness whereof the duly authorized officers of this corporation have hereunto subscribed their names and caused the corporate seal to be hereto affixed at Wausau, Wis., this _____ day of _____ A. D. 190—.

President.

Secretary.

Shares, \$100 each.

ART. X.—Transfer of stock.

All capital stock when fully paid shall be nonassessable, and shall be transferable only on the books of the corporation. Persons holding stock according to the stock record, and none others, shall be entitled to vote at all stockholders' meetings in person or by proxy. Every stockholder shall furnish the secretary with his correct address at all times, and failure to do so shall be a waiver of all right to notice of stockholders' meetings.

ART. XI.—Amendments.

These by-laws may be amended at any regular meeting of the stockholders or at any special meeting duly called for that purpose by a majority vote of all the stock represented at the meeting.

ELECTION OF DIRECTORS—ELECTION OF OFFICERS.

The following-named gentlemen were then duly elected directors of this corporation: George A. Whiting, Thomas E. Nash, Lewis M. Alexander, Walter Alexander, Alexander H. Reid, Arthur W. Shelton, and G. D. Jones, and these directors, in session upon the adjournment of the stockholders' meeting, elected George A. Whiting president, Walter Alexander vice-president, and G. D. Jones secretary and treasurer of this corporation.

On the 1st of August the directors engaged A. A. Babcock, jr., an engineer, as general manager, and the work of the company has been prosecuted since that time conformably to its articles of incorporation, by-laws, and said chapter 335 of the Laws of Wisconsin for 1907, and has submitted its reports to the railroad commission of Wisconsin, and has been duly authorized to issue stock to stock subscribers who have paid therefor, and to collect tolls earned to January 1, 1908, from those required to pay the same.

THE STOCKHOLDERS.

The stock subscriptions to this time have all been made for the supposed proportionate part which each of the various proprietors of water powers is entitled to receive under the articles of incorporation and under the provisions of said chapter 335 of the Laws of Wisconsin for 1907. It is expected and desired that the remainder of the stock will be taken by the parties who are entitled to the same.

The following is a list of the stockholders of the company and the amount of stock held by each January 1, 1908:

	Shares.
Town of Eagle River, Otter Rapids Power.....	15
Rhineland Paper Company, Rhineland Power.....	37
Rhineland Paper Company, Hat Rapids Power.....	25
Bradley Company, Nigger Island Power.....	51
Bradley Company, Kings Power.....	23
Tomahawk River Improvement Company, Tomahawk River Power at Tomahawk.....	8
Tomahawk Pulp and Paper Company, Wisconsin River Power at Tomahawk.....	27
Wisconsin Land and Power Company, Grandmother Falls Power.....	36
Grandfather Falls Company, Upper Grandfather Falls Power.....	57
Alexander Stewart Lumber Company, on its Lower Grandfather Falls Power.....	70
R. L. Kraus, on his Lower Grandfather Falls Power.....	34
Wisconsin River Traction and Power Company, Trappe Rapids Power.....	35
Wausau Paper Mills Company, Brokenw Power.....	27
Wausau Electric Company, its one-half Wausau Power.....	21½
Alexander Stewart Lumber Company, its one-half Wausau Power.....	21½
Rothschilds Water Power Company, Power Rothschilds, near Schofield.....	34
Joseph Dessert Lumber Company, Mosinee Power.....	36
Jackson Milling Company, its Stevens Point Power.....	21
Wisconsin River Pulp and Paper Company, its Stevens Point Power.....	33
Plover Paper Company, Plover Power.....	17
Grand Rapids Pulp and Paper Company, Biron Power.....	22
Consolidated Water Power and Paper Company, its Grand Rapids power.....	52
Centralia Pulp and Water Power Company, Lower Centralia Power.....	22
John Edwards Manufacturing Company, Port Edwards Power.....	31
Nekoosa Paper Company, Nekoosa Power.....	34
Total.....	790

The engineer's report upon which the stock subscription was apportioned among the owners of water powers on the Tomahawk and Wisconsin rivers, under article 6 of the articles of incorporation, showed a total fall in the Wisconsin River between Otter Rapids, near Eagle River, and Kilbourn City, excluding all undeveloped water powers not capable of developing a theoretical 10-foot head or more, of 602 feet, and a fall in the Tomahawk River so available of 35 feet. Seventy-nine per cent of the stock allotments made have been subscribed for as above stated.

GENERAL REMARKS.

This pamphlet is published by direction of the board of directors of the Wisconsin Valley Improvement Company. There has been more or less misunderstanding regarding the general purposes and intentions of the company. This will be removed when the facts are known. So far as we can learn our company is the first ever organized by private capital for this important work. There are, of course, many systems of water reservoirs in the United States in connection with the improvement of rivers for navigation and for commercial uses, but they are in most cases public improvements made by the National Government or by some State. The entire subject is one of peculiar interest to Wisconsin. Leaving out the waters that form international boundaries between the United States and British America, the rivers of our State are capable of producing more power than those of any State east of the Rocky Mountains. The enormous importance of this fact is not as yet well understood. Three things greatly increase its weight:

First. The discoveries in the electrical field for power storage and power transmission.

Second. Wisconsin's geographical location with reference to the great distributing commercial centers of the United States.

Third. The State's other great natural resources in timber, mineral, and fine agricultural lands.

It is more and more apparent that all this power can be and should be made available. Its development is inseparably connected with that of the State. It is important to every citizen of Wisconsin to preserve and perpetuate its most

efficient usefulness. It is not a matter for to-day, nor for this century, even. It is forever. History proves that unless the flow of rivers is governed so as to produce as nearly a uniform flow as possible, their value for navigation and for power purposes is enormously reduced. This is also highly important to those who live along the shore, both directly in minimizing danger from floods, and indirectly in furnishing more continuous employment to labor.

The constitution of Wisconsin forbids the State from engaging in any work of internal improvement. But for this it is probable the State would itself undertake the work of establishing water reservoirs to control the flow of its principal streams. The granting of these powers to a corporation is, therefore, a necessity. The incorporators of the Wisconsin Valley Improvement Company fully realized this. They believed that to obtain the greatest efficiency absolute justice must be done to all living in or interested in the Wisconsin River Valley, and they sought to accomplish this result. It will be seen its articles of incorporation, and especially Articles VI, VIII, and IX therein, insure fair treatment to everyone who may now or may hereafter be interested in water powers upon the river, and that chapter 335 of the Laws of Wisconsin for 1907, which was enacted by our legislature at its request after very careful study and consideration, completely safeguards the interests of all citizens who are not water-power owners, while providing for State ownership in case the State at any time hereafter may have such constitutional right.

Some fear has been entertained that the establishing of reservoirs would mean the destruction of much of the natural beauty and pleasure of the lake region of northern Wisconsin. Happily, under the wise regulation of the law, these fears are wholly unfounded. In fact, it is known that, on the contrary, by holding the water in the thoroughfares and lakes at a proper level, the beauties of this region are enhanced and its pleasures made more enjoyable. This regulation of the water is properly placed with the forestry commission by the law, and this commission also regulates the construction of all dams and improvements which the company may make, and sees to it that they shall be provided with proper fishways and safeguards for the preservation of game fish.

Winter in Wisconsin is the prolonged low-water season of the year, and it is a great advantage to the entire river system that the reservoirs be drawn down at this time and filled in the spring so as to avoid the floods of that season as much as possible. It was late in the season of 1907 when the company was organized. Some of the dams it acquired were in bad condition, and the fall of 1907 was dry. The company started the winter, therefore, with its reservoirs only partially filled, yet it took from them a steady flow of 325 cubic feet of water per second for three months, and no doubt this amount will be largely increased in the future.

Unless the National Government will undertake it until the State has constitutional power, this work of river regulation must be done by private capital, in corporations organized like ours. The Wisconsin Valley Improvement Company has pioneered the way. Every citizen of Wisconsin is interested in seeing that such organizations are promptly made on all the important Wisconsin rivers before the cost of acquiring the necessary land makes this prohibitive. This is especially true of the Chippewa and Flambeau waters, whose value to our State for water-power uses is only second to the Wisconsin River. This is not only a proper matter of State pride; it is one of sound public policy, and should not be neglected.

The Wisconsin Valley Improvement Company appreciates the fact that some mistakes are unavoidable, and that some damage may result therefrom. It will be wholly unintentional, however, and its officials will appreciate prompt information that will enable it to correct them. It asks the cooperation of everyone in this and in all things that may be helpful in its work, which, after all, is to make the Wisconsin River as useful and beneficial as possible to the entire people of our State.

WISCONSIN VALLEY IMPROVEMENT Co.,
Wausau, Wis.

The CHAIRMAN. Is this a separate company here?

Mr. WHITING. I own this individually.

The CHAIRMAN. What is your capacity; what do you make?

Mr. WHITING. My capacity is about from 475,000 to 500,000 pounds a month. I run on specialties very largely, from French folio to high grades of antique law book, and such stuff as that.

The CHAIRMAN. You make here nothing but paper?

Mr. WHITING. That is all.

The CHAIRMAN. Where do you get your material?

Mr. WHITING. That is a very hard question to answer. I get my rags principally in the Chicago market. I buy my pulps anywhere that I can buy them cheapest.

The CHAIRMAN. That would be sulphite and soda?

Mr. WHITING. Soda pulp, and ground wood. I use a very little ground wood.

The CHAIRMAN. I did not know but you brought them from some of your other mills.

Mr. WHITING. No.

The CHAIRMAN. You buy all this material wherever you can do the best?

Mr. WHITING. In the open market, where I can buy it to the best advantage.

The CHAIRMAN. We would like to go through the mill.

Mr. WHITING. All right, sir. There is one thing that I would like to call your attention to more forcibly this morning than ever before. Necessities always bring changed conditions. That is so in families and corporations and in every line of life that I know anything about. Now the use of cement has lessened the demand for lumber in this country in my judgment more than the amount of wood that is used in the manufacture of pulp and paper, for this reason: The use of cement in sidewalks, mill buildings, and construction of large buildings is spreading all over the country, and the grinding and cooking of wood is centered only in a few States and at a few points in those States. The growth of the timber is something that in its entirety is enormous. It is a thing that but few really appreciate and realize. I have in my yard trees that I set out in 1876 in commemoration of the Centennial, that were small trees, not to exceed, I should think, 2 inches in diameter. I measured a few of those trees a while ago and I think I have the measurements here. There is a maple tree that was put out in 1876. It now measures 5 feet 4 inches in circumference.

The CHAIRMAN. A sugar maple or a soft maple?

Mr. WHITING. A soft maple.

Mr. RYAN. How high from the ground?

Mr. WHITING. Five feet. Another one measures 4 feet and 1 inch, and another 3 feet and 9 inches. I have a birch tree that was set out three years ago. I brought three of them down in the smoking car with me from the upper mill. I set those out and one of those birch trees is 1 foot and 9 inches in circumference. It was not over an inch when it was set out. An ash tree that was like a whipstock when I rebuilt my house nine years ago measures 18 inches in circumference.

The CHAIRMAN. Of course these are not grown under forestry conditions.

Mr. WHITING. They are not grown under as good as forestry conditions because they are set out in red clay soil.

The CHAIRMAN. They are grown under a great deal better than forestry conditions for rapid growth because a branching tree increases the size of the lower part of the tree many more times more rapidly than if the tree is practically without branches.

Mr. WHITING. On the other hand, if you have got 5 trees in a radius of 30 feet, for instance, and you cut out 3 of those 5 trees, and you will get more growth out of the 2 that are left than you will out of the 5 for the next five years. So the whole matter resolves itself into intelligent forestry and to a conserving of the forests by making them to be taken care of as a man in this kind of business has to take care of his business in order to perpetuate his existence.

Mr. RYAN. Is spruce wood as rapid growing as the wood that you have talked about?

Mr. WHITING. It is admitted that the spruce wood will grow in a climate like Maine, which is about the same as our northern climate, from 6 to 9 per cent. We will have some data on this later. We hope to do something along these lines by a campaign of education.

The CHAIRMAN. I notice they use the term "railroad writing paper" in several places. What does that cover in a general way?

Mr. WHITING. It is used by the railroad service in a great many ways.

The CHAIRMAN. Railroad writing paper is not confined to railroads?

Mr. WHITING. Not to railroad use. But it is very largely used for railroads.

The CHAIRMAN. It is a class of writing paper almost like book paper, is it?

Mr. WHITING. It is very similar to book paper, only it has more strength and also the ability to resist ink.

Mr. NORRIS. It is also yellow, isn't it?

Mr. WHITING. Not all. We make it pink or any color.

Mr. NORRIS. It is never white, is it?

Mr. WHITING. Yes; we make what we call a parchment that is white.

The committee then examined and inspected the Whiting mill and from there proceeded to Kaukauna and inspected the mill of the Union Bag and Paper Company, also the mill of the Thilmany Pulp and Paper Company.

STATEMENT OF M. A. WERTHEIMER, AT THE MILL OF THE THILMANY PULP AND PAPER COMPANY.

The CHAIRMAN. What do you make mostly?

Mr. WERTHEIMER. I would classify our business in wrappings of special character only; not as is generally known. I can not give it to you without showing it to you. Here is a wrapping of a special character, with somebody's name on it—National Biscuit Company.

The CHAIRMAN. What do you call it?

Mr. WERTHEIMER. It is a wrapping paper.

STATEMENT OF C. W. SIBLEY, AT THE MILL OF THE THILMANY PULP AND PAPER COMPANY.

The CHAIRMAN. Give us your name.

Mr. SIBLEY. C. W. Sibley.

The CHAIRMAN. What is your business in the mill?

Mr. SIBLEY. I am secretary and treasurer of this company.

The CHAIRMAN. What do you make, speaking in a general way?

Mr. SIBLEY. It is pretty hard to say. I don't know what you would call it.

The CHAIRMAN. You don't make any news or writing paper?

Mr. SIBLEY. No.

The CHAIRMAN. Wrapping paper of different sorts?

Mr. SIBLEY. We make more wrapping paper of different sorts than anything else, I believe.

The CHAIRMAN. What do you use to make it?

Mr. SIBLEY. Ground wood and sulphite.

The CHAIRMAN. Do you make your own ground wood?

Mr. SIBLEY. We make a small percentage of it.

The CHAIRMAN. Do you make any sulphite?

Mr. SIBLEY. We do not.

The CHAIRMAN. You buy most of your material?

Mr. SIBLEY. Yes; by far.

The CHAIRMAN. Buy it mostly of manufacturers in this State or do you get it more from the East?

Mr. SIBLEY. The largest tonnage comes from this State.

The CHAIRMAN. Do you have any trouble about getting fiber and ground wood?

Mr. SIBLEY. Not this year.

The CHAIRMAN. You do not use very much pulp wood, then?

Mr. SIBLEY. Very little.

The CHAIRMAN. Where do you get that from?

Mr. SIBLEY. It is through the pulp wood company. I don't know where it comes from.

The CHAIRMAN. One of these supply companies, do you mean?

Mr. SIBLEY. Yes.

The CHAIRMAN. You probably have not given very much consideration to the question of the pulp wood supply?

Mr. SIBLEY. Not as much as some other people, because we are not as vitally interested as some of the others.

The CHAIRMAN. You are not so directly interested possibly; that is, you are not using it so much?

Mr. SIBLEY. Not using the quantities.

The CHAIRMAN. But you would suffer just as much if the pulp wood supply gave out?

Mr. SIBLEY. In the same proportion; yes.

The CHAIRMAN. Do you sell your products to agents or directly?

Mr. SIBLEY. In a general way, we sell practically all to paper jobbers.

The CHAIRMAN. What is your capacity?

Mr. SIBLEY. It all depends on what we are making. From 20 to 30 tons a day.

The CHAIRMAN. What is your power?

Mr. SIBLEY. Steam and water.

The CHAIRMAN. Do you use water for anything except ground wood?

Mr. SIBLEY. Yes; we use water for running some of our beaters and some of our Jordans.

The CHAIRMAN. How about the water now?

Mr. SIBLEY. It is very low just now.

The CHAIRMAN. How much water are you using now?

Mr. SIBLEY. About 200 to 300 horsepower.

The CHAIRMAN. What percentage is that of the full power?

Mr. SIBLEY. The full power that we would use if we had it all, do you mean?

The CHAIRMAN. Yes.

Mr. SIBLEY. We have wheel capacity to use about twice that much, possibly a little more.

The CHAIRMAN. What do they mean when they say they are only using 10 per cent of their water power?

Mr. SIBLEY. I can not answer that technically.

The CHAIRMAN. Is the amount you are using equal to 10 per cent?

Mr. SIBLEY. No; our consumption of water is very small as compared with the flow of the river. The bulk of our machinery is run by steam. All of our paper machines are run by steam.

The CHAIRMAN. Is there anything else you want to suggest?

Mr. SIBLEY. I have no suggestions to make.

Mr. RYAN. Do you use any imported pulp?

Mr. SIBLEY. We have used a very little in an experimental way.

STATEMENT OF MR. F. J. SENSENBRENNER AT THE KIMBERLY MILL, AT KIMBERLY, WIS.

The CHAIRMAN. Tell us what the mill is and what you do here.

Mr. SENSENBRENNER. This is the Kimberly mill of the Kimberly-Clark Company. It produces 52 tons of sulphite pulp per day, 50 tons of book paper per day, and 9 tons of coarse wrapping paper per day.

The CHAIRMAN. You use some ground wood, of course?

Mr. SENSENBRENNER. We use some ground wood here, yes, sir, and sulphite.

The CHAIRMAN. Does that come from some of your other mills?

Mr. SENSENBRENNER. The ground wood does; and old paper.

Mr. RYAN. How long has the mill been in operation?

Mr. SENSENBRENNER. The sulphite end of the mill was built in 1889 and rebuilt about three times since. We built a print-paper mill here in 1890 which was destroyed by fire in 1892, and in its place we built a book-paper mill in 1904.

The CHAIRMAN. Do you use any rags in your book paper?

Mr. RYAN. Does the Kimberly-Clark Paper Company make print paper anywhere?

Mr. SENSENBRENNER. It does at Niagara, Wis., on the Menominee River.

The CHAIRMAN. Now, if you please, we will go through the mill.

The committee then examined and inspected the Kimberly mill, at Kimberly, Wis.

MENASHA HOTEL,

Menasha, Wis., September 17, 1908—9 a. m.

STATEMENT OF MR. CHARLES ROBINSON SMITH.

The CHAIRMAN. Give us your full name.

Mr. SMITH. Charles Robinson Smith.

The CHAIRMAN. Your company?

Mr. SMITH. The Menasha Wooden Ware Company.

The CHAIRMAN. The Menasha Wooden Ware Company is one of the largest, if not the largest, wooden-ware companies in the world, I understand from others?

Mr. SMITH. I think in that line, possibly.

The CHAIRMAN. In connection with the Menasha Wooden Ware Company, are you fairly conversant with the forest resources of your Northwest?

Mr. SMITH. I think so.

The CHAIRMAN. Will you, in your own way, give us such information as you can, especially in connection with the forest resources, and especially in connection with the spruce and hemlock forests?

Mr. SMITH. I know very little about spruce. I know a little something about hemlock.

The CHAIRMAN. Whatever information you can give us we would be greatly obliged for.

Mr. SMITH. I should think, as to the hemlock resources of the State, that a good criterion to go by would be estimates that have been recently made by the Wisconsin and Northern people, who are building a road from Menasha to North Crandon to connect with the Soo. This road is now nearly completed between Shawano and North Crandon. By actual estimates through eight townships, including the Menominee Indian Reservation and the townships north of the Menominee Indian Reservation to North Crandon, there is a little over a billion feet of hemlock, 6 miles each side of the tracks.

The CHAIRMAN. What distance is that?

Mr. SMITH. Six townships, or what would be 36 miles the way the crow flies. Probably about 45 miles by railroad.

The CHAIRMAN. Is that virgin forest?

Mr. SMITH. It is practically virgin forest and is probably the best hemlock region in the State. I do not know of any large areas like that that have been estimated. This is actually estimated and through these townships there is a little over a billion feet of hemlock and about 2 billion feet of other timber, showing that in that territory it is about a third hemlock.

The CHAIRMAN. What other timber is there in the State, hemlock?

Mr. SMITH. I should think in the entire State there would be between 25 and 50 billion of hemlock. Not millions but billions. Located mainly on the Chippewa River and branches, the Wisconsin River and branches, the Wolf, Oconto, Peshtigo, and Menominee rivers and branches.

The CHAIRMAN. In cutting this timber on this new road how is it likely to be cut, clean or just cut 12 or 14 inch diameter trees?

Mr. SMITH. It will be cut clean where it is owned by private individuals and cut under forestry methods on the Menominee Indian Reservation, because the cutting on the reservation is now left to the forestry department.

The CHAIRMAN. Is it the Menominee Indian Reservation where Congress last winter provided for the construction of sawmills?

Mr. SMITH. Yes, sir.

The CHAIRMAN. For the nominal purpose of cutting up the dead and down timber?

Mr. SMITH. And teaching the Indians how to cut lumber, etc.

The CHAIRMAN. I held up the bill for a long while.

Mr. SMITH. You ought to have held it up entirely.

The CHAIRMAN. I thought so myself, but the House ran over me once on a suspension of the rules and then I quit on that. Of course, what we want to get at is the probable future available supply of pulp wood in connection with the demands of timber for other lumbering purposes, the supply in Wisconsin, the supply in the Northwest in connection with the necessity of obtaining supply from across the line in Canada. You have not had occasion to study the pulp wood question to any extent except in connection with your own business?

Mr. SMITH. Yes, I have studied it more or less because I have bought timber in the West, in Canada, and in Minnesota.

The CHAIRMAN. Give us your views and any information which you think you have available on that question.

Mr. SMITH. As I said, I am not very well posted on the spruce of Wisconsin and Minnesota, but there is more hemlock standing in the State than any other timber, in my opinion. Possibly there may be more maple, but I think maple and hemlock are the two timbers that are commonest.

The CHAIRMAN. Do you use any hemlock in the wooden-ware business?

Mr. SMITH. No.

The CHAIRMAN. Do you use maple?

Mr. SMITH. No, but our company own probably a hundred thousand acres of hardwood lands throughout the State on which there is maple, hemlock, and all kinds of timber.

The CHAIRMAN. In obtaining your own supply of timber, do you cut from your own land yourself?

Mr. SMITH. Yes, sir. We cut the maple, hemlock, and other stuff unless we sell the logs and the lumber.

The CHAIRMAN. I do not quite understand.

Mr. SMITH. For instance, we log about 40,000,000 or 50,000,000 feet a year. We do not use maple or hemlock. We either sell these logs or manufacture the hemlock logs into lumber for the market.

The CHAIRMAN. Do you supply pulp wood?

Mr. SMITH. Occasionally sell some pulp wood. Yes, sir.

The CHAIRMAN. But not as a regular thing.

Mr. SMITH. Well, we generally sell from 4,000,000 to 5,000,000 feet of hemlock every year.

The CHAIRMAN. Take it for instance, last season or probably the ensuing season where you lumber, are you liable to convert your logs into lumber or pulp wood, your hemlock logs?

Mr. SMITH. That will depend upon the price.

The CHAIRMAN. That is what I suppose, but what is the present situation?

Mr. SMITH. With us, not being strictly in the lumber business, as a great many others are, we prefer to sell our logs rather than to make any hemlock lumber.

The CHAIRMAN. You sell your logs to the mills, do you?

Mr. SMITH. Yes, yes, sir. To the pulp mills.

The CHAIRMAN. So that a large share of your hemlock goes into pulp wood.

Mr. SMITH. It has for the last four or five years.

The CHAIRMAN. Just at present lumber is dull, isn't it?

Mr. SMITH. Very dull, yes, sir.

The CHAIRMAN. The last year there has been a greater demand for pulp wood than for saw logs, hasn't there?

Mr. SMITH. For two or three months, not any. I think the demand for pulp wood ended about September 1. They wanted to cut me down in the price about then anyway.

The CHAIRMAN. Have you any judgment as to the probable future supply of pulp wood for these mills in this part of the State?

Mr. SMITH. I think I have.

The CHAIRMAN. Would you object to giving us the benefit of that?

Mr. SMITH. As long as they can use hemlock they will never be out of wood.

The CHAIRMAN. You think there is a plentiful supply of hemlock?

Mr. SMITH. I don't think at all. I know there is.

The CHAIRMAN. That would depend, of course, upon how much of it is used for saw logs. If you cut it off clean for lumber, how long will it last?

Mr. SMITH. They do not cut it off clean for lumber. The pulp mills use a smaller grade and poorer grade of timber than the sawmills, consequently they get more in 40 acres for pulp wood than for saw logs, ordinarily.

The CHAIRMAN. Do they cut it very clean or not?

Mr. SMITH. They do cut it very clean.

The CHAIRMAN. How long does it take for that to reproduce, or does it reproduce?

Mr. SMITH. It reproduces, but in the original stand of hemlock, if it is cut into, the wood dies; but take a section, for example, as there is along this new road, that timber is growing probably 4 or 5 per cent every year.

The CHAIRMAN. If that is cut off, is that the end of the hemlock in that locality?

Mr. SMITH. Ordinarily, because the lands are good for agricultural lands. It is more profitable to sell the land to farmers than to raise trees.

The CHAIRMAN. Then why do you think there is an inexhaustible supply of hemlock there; won't they reach it all after a while?

Mr. SMITH. Not in the next fifty years, I think. There is a very erroneous idea, especially by Pinchot and his people, that the timber is likely to disappear in a short time.

Mr. RYAN. Do you base your calculation on the output and the consumption of pulp wood by the Wisconsin mills?

Mr. SMITH. Yes, sir. And the sawmills that use hemlock.

The CHAIRMAN. During the last few years has there been an increased use of hemlock for timber purposes?

Mr. SMITH. Yes; there has, because the pine is getting less every year. The cut of pine is getting less every year in Wisconsin.

The CHAIRMAN. Is that use of hemlock likely to increase in the future by the sawmills?

Mr. SMITH. That depends largely upon the price of southern lumber. If the price of southern lumber remains as it has, I think there will be less cut than otherwise. Southern lumber being better than hemlock lumber, and being shipped in at a low price at the present time, I think there will be 25 per cent less hemlock cut by the sawmills this winter than there was last, and possibly one-third less.

The CHAIRMAN. Is there an inexhaustible supply of pine in the South?

Mr. SMITH. It grows very rapidly. They can cut it off down there about every twenty years. Some of the best forests in the South were cotton fields during the war. My men down there have found cannon right in the forest where the trees were 2 or 3 feet in diameter.

The CHAIRMAN. I should be inclined to think that that was very unusual.

Mr. SMITH. That is the case, though.

The CHAIRMAN. I have been in the South a good deal and unfortunately own some southern land.

Mr. SMITH. This cut of timber that I have reference to was cottonwood that grew up since the time of the war.

The CHAIRMAN. That grows very rapidly, of course. Not long leaf or other pine?

Mr. SMITH. No; it does not grow one-half as fast as cotton wood does.

The CHAIRMAN. How do the pulp mills here get most of their pulp wood, as far as you know? Do they buy it through companies like yours, or largely through one supply company that they have organized? Do they deal directly with your company or individually, more or less?

Mr. SMITH. Some of them, yes, sir.

The CHAIRMAN. You furnish that f. o. b. where?

Mr. SMITH. Where it is loaded on the cars or delivered on the river.

The CHAIRMAN. Do they bring more or less of it down by water, or down the river?

Mr. SMITH. Yes; yes, sir. We sold 5,000,000 feet on one river last year to one mill.

The CHAIRMAN. You spoke of the hemlock forests of Wisconsin. Are you familiar with the forests of Minnesota and the Northwest and Canada?

Mr. SMITH. Yes, sir; particularly Minnesota.

The CHAIRMAN. What about the Minnesota forests?

Mr. SMITH. I have bought pine there during 15 or 20 years. I did not figure very much on the spruce. I noticed that in the pine forests nearly every 40 acres is covered with more or less spruce, although I did not buy it for the spruce. That is in northern Wisconsin.

The CHAIRMAN. Are you cutting any of that?

Mr. SMITH. No, sir, not at the present time.

The CHAIRMAN. When you cut that, is the spruce used for making lumber?

Mr. SMITH. It is usually sold to paper mills.

The CHAIRMAN. Have you any estimate as to the amount of available forest in Minnesota?

Mr. SMITH. No, sir.

The CHAIRMAN. Do you know whether or not anybody else has any knowledge on that subject?

Mr. SMITH. Yes, there is a man that is employed by the State of Minnesota; I do not remember his name. He is not the State forester, but he answers that purpose. I think he is thoroughly posted.

The CHAIRMAN. He is under the forester?

Mr. SMITH. He is employed by the State. The State of Minnesota has a large amount of land, and he answers the purpose, but that is not his title. I think he is very well posted.

The CHAIRMAN. They have just compiled more or less information up there for the benefit of the Department of Commerce and Labor. How about the forests in the far Northwest?

Mr. SMITH. What State, sir?

The CHAIRMAN. Washington and Oregon.

Mr. SMITH. Of course, there are immense forests there.

The CHAIRMAN. Are you familiar with the forestry situation there?

Mr. SMITH. Yes, sir.

The CHAIRMAN. Is there much pulp wood up there?

Mr. SMITH. An inexhaustible supply.

The CHAIRMAN. Spruce?

Mr. SMITH. Yes, sir.

The CHAIRMAN. Hemlock?

Mr. SMITH. Yes, sir.

The CHAIRMAN. How about across the line out there?

Mr. SMITH. You mean in British Columbia?

The CHAIRMAN. Yes, sir.

Mr. SMITH. Just the same; the same condition exists there, only more so. But the stand of timber is so much thicker on the coast than in Wisconsin, or ever was in Wisconsin, that there is a good deal more timber there than people suppose. It is not unusual to find 100,000 or 200,000 feet to the acre, whereas you will find about that amount on 40 acres in Wisconsin. I think the timber is growing on the coast two or three times as fast as it is being cut at the present time, notwithstanding the reports of the Forestry Department of the Government.

The CHAIRMAN. What can you tell us about the timber forests right across Lake Superior?

Mr. SMITH. In Ontario?

The CHAIRMAN. Yes.

Mr. SMITH. There is quite a good deal of spruce there. There is a great deal of spruce in Canada all the way from Quebec to Winnipeg.

The CHAIRMAN. Are there spruce forests along the north shore of Lake Superior?

Mr. SMITH. More or less.

The CHAIRMAN. Would those forests be available, taking everything into consideration from the freight point of view and shipping point of view, for the pulp mills in Wisconsin?

Mr. SMITH. I would not think they would be very available except along the lake. I should think the transportation charges back would be too great as long as timber exists in Wisconsin and Minnesota. I would like to testify right here that I have no interest in any paper or pulp mill, and never did have any.

The CHAIRMAN. We asked you to appear simply because you are supposed to be a mine of information.

Mr. SMITH. I don't know about that.

The CHAIRMAN. Have you any judgment or information as to the effect of taking the tariff off of timber?

Mr. SMITH. I think I have.

The CHAIRMAN. Would you give us that?

Mr. SMITH. I think that it would accrue to the benefit of the bulk of Canadian stumpage owners. As far as I personally am concerned, it would help me to take it off, because I have large holdings in Canada.

The CHAIRMAN. What class of timber?

Mr. SMITH. Spruce.

The CHAIRMAN. Where is that?

Mr. SMITH. It is about 150 miles northwest of Winnipeg on the Saskatchewan River.

The CHAIRMAN. Is that a spruce country up there?

Mr. SMITH. Yes. Large spruce. I bought it for lumber.

The CHAIRMAN. Is there a great deal of forest up there?

Mr. SMITH. Quite a little; yes, sir.

The CHAIRMAN. How far does that spruce forest run in Canada?

Mr. SMITH. More or less along the Saskatchewan River away to the headwaters, the Rocky Mountains. However, the bulk of it is in the southern part, toward Lake Winnipeg.

The CHAIRMAN. How far west does this Ontario spruce forest run?

Mr. SMITH. I think there is more or less spruce all the way through to the Rainy River.

The CHAIRMAN. Is there anything else?

Mr. SMITH. Unless the gentlemen here would like to have me give some other information. Do you think of anything else, Mr. Whiting?

Mr. WHITING. I do not think of anything else. I sent this down last night and this might refresh your memory. [Referring to book of photographs along the new railroad spoken of.]

Mr. SMITH. That is taken from every section on that road.

Mr. WHITING. About what percentage is hemlock?

Mr. SMITH. There is about one-third by actual estimate of hemlock along that road from the Indian Reservation to Crandon. Three billion feet and about 1,000,000,000 feet of hemlock. I think I stated that.

Mr. WHITING. How far does that road run through that virgin forest?

Mr. SMITH. About 6 townships besides the Menominee Reservation. That would be 8 townships.

Mr. WHITING. About what width of territory?

Mr. SMITH. The estimate covered 6 miles on either side. That would be 12 miles.

The CHAIRMAN. Does that virgin forest still extend on each side of that?

Mr. SMITH. Yes; surely.

The CHAIRMAN. How far, do you know?

Mr. SMITH. I should think it extended 12 or 15 miles either side. Then, of course, we come to the Northwestern road and we would figure that that would be tributary to another railroad.

The CHAIRMAN. Has that ever been touched at all, this forest?

Mr. SMITH. To a small extent. The pine has been cut out.

The CHAIRMAN. The big pine?

Mr. SMITH. All pine, big and small.

Mr. WHITING. There wasn't very much pine in it.

Mr. SMITH. Yes; a good deal of pine.

The CHAIRMAN. Is there any spruce in it?

Mr. SMITH. Yes, sir; about the same amount of spruce as the general average of timber through the State.

Mr. WHITING. These photographs were taken on every section. You can see the nature of the timber.

Mr. SMITH. If you are not familiar, I can tell you which the hemlock trees are.

The CHAIRMAN. There is some nice hemlock here.

Mr. WHITING. That is taken not for a show book but simply to know just what we have got.

Mr. SMITH. Mr. Whiting is largely interested in the road as I am.

Mr. WHITING. A very small interest.

The CHAIRMAN. I think you said that you were not familiar with the situation concerning spruce wood in the State.

Mr. SMITH. Not as to estimates or general details.

Mr. WHITING. I would like to ask Mr. Smith if he is acquainted with the conditions on the new road of the Wisconsin Central going from Ladysmith to Superior?

Mr. SMITH. Yes.

Mr. WHITING. Does that open up any new timber?

Mr. SMITH. Yes; but not as large as there would be on the Wisconsin and Northern.

Mr. WHITING. Perhaps five or six years' supply in there.

Mr. SMITH. A great many more years than that. The way I happened to be very well posted, I started buying timber when I was 16 and sort of kept at it, and my observation is that there is a great deal more timber than the best of lumbermen think there is in Wisconsin and every other State. That is illustrated by the cut of white pine in Maine last winter, which was larger than the State of Michigan. People supposed that all the white pine in Maine was cut years and years ago.

The CHAIRMAN. Larger than the cut last year in Michigan?

Mr. SMITH. Yes, sir.

The CHAIRMAN. That, of itself, shows in a way the fact that the timber supply will give out after a while. I suppose the white pine forests of Michigan were the finest in the world, were they not?

Mr. SMITH. Yes, sir; but Maine is supposed to have been cutting nothing but spruce for a great many years. Pine was supposed to be played out twenty years ago.

The CHAIRMAN. They are cutting the young pine there, aren't they?

Mr. SMITH. They are new fields—smaller pine.

Mr. RYAN. Was the cut in Michigan very large last year?

Mr. SMITH. Not very large. I don't remember the exact figures. A good many million.

The CHAIRMAN. Looking at these photographs along the line of this new road, most of this is hardwood timber.

Mr. SMITH. It will run about one-third hemlock.

The CHAIRMAN. It doesn't look it, not being a very great judge myself.

Mr. WHITING. I would be glad to take the committee through that forest for 34 or 35 miles.

Mr. SMITH. It would give them a better idea of the timber in Wisconsin than anything else. You can take the railroad right through. It is the only place I know of where you can go in the cars and see

the stand of timber which has not been cut out. Take the train from Shawano through the Indian reservation.

The CHAIRMAN. Is this road open now?

Mr. SMITH. Yes; it is running. You ought to go up there and see how they are cutting logs on the Indian reservation.

The CHAIRMAN. I was very bitterly opposed to that legislation.

Mr. SMITH. If you take them up, wait until next week and I will go with them.

Mr. WHITING. If we can hold them here, we will do it.

Mr. SMITH. Give them a special train.

Mr. WHITING. Yes; a switch engine and a caboose.

Mr. SMITH. You spend three hours in the timber and it will give you a better idea of the forests of Wisconsin than anything else. If you go and see trees and see them growing it will give you a better idea than all the interviews you can have in a month.

The CHAIRMAN. We are going into the timber some place, through the virgin forest.

Mr. SMITH. I do not know an easier way than to go in there. There you can just take a train.

Mr. RYAN. You speak about the supply in Wisconsin being inexhaustible.

Mr. SMITH. Comparatively speaking.

Mr. RYAN. What percentage of the pulp wood cut in the country is cut in Wisconsin?

Mr. SMITH. That I don't know. I am not in the pulp or paper business.

The CHAIRMAN. They thought at one time that the supply of white pine in Wisconsin and Michigan was inexhaustible.

Mr. SMITH. That is a good many years ago. It lasted about thirty or forty years longer than people figured on. I can remember thirty years ago that people used to say on the Wolf River that there would be about one or two years' cut. This year, of logs altogether, 35,000,000 came down Wolf River.

The CHAIRMAN. If you believe that the supply of wood or forest in the United States is sufficient to supply the demand for wood products in the future, why do you protect yourself by purchasing land in Canada?

Mr. SMITH. I am just buying that for speculation, as I do in Idaho, Washington, and other places; nothing else. I think my factory, if the timber could be cut in forestry methods, would have an inexhaustible supply. It is not proper to cut in forestry methods in Wisconsin because the land is too valuable, and furthermore the taxes are too high. If timber was taxed like farm crops, only tax the land and tax the timber after it is cut, then people would hold their timber longer.

The CHAIRMAN. There is practically no conservation of forest methods adopted in this State then?

Mr. SMITH. The State of Wisconsin has set aside some few areas of timber, but no private individual or corporation could afford to do it on account of the taxes.

The CHAIRMAN. What is the basis of the taxation of the timber lands here?

Mr. SMITH. I would think on an average it was 2 or 3 per cent on actual value.

The CHAIRMAN. Value of standing timber?

Mr. SMITH. Yes, sir; take the land and timber together.

The CHAIRMAN. How long since they commenced to use these forest lands for agricultural purposes?

Mr. SMITH. They have done it for the last hundred years, that is, the hard-wood land. The pine lands are fairly good for farms. You can see them if you go to Shawano. There it used to be pine, and you will see very good farms around Shawano.

The CHAIRMAN. That is a recent thing, isn't it?

Mr. SMITH. No. You will see farms up there that have been cultivated for twenty-five years.

The CHAIRMAN. I was under the impression that it was only in recent years that they were using the old pine-land ground for farm purposes to any great extent.

Mr. SMITH. I think I can explain that. The bulk of the pine in Wisconsin was interspersed with hard wood. That makes very good land. You take in northern Michigan and some places in northern Wisconsin where it was nothing but a stand of pine, and that land is not very good for farm land. Where it is mixed with hard wood and hemlock the land is very good for cultivation.

The CHAIRMAN. I suppose the Government is practicing forestry methods on the Menominee Indian Reservation, or proposes to?

Mr. SMITH. They propose to do so; yes, sir.

The CHAIRMAN. I believe they are endeavoring to educate the Indians in forestry methods as well as to furnish them occupation.

Mr. SMITH. Theoretically that is what they are doing, but practically they will never do it.

STATEMENT OF JOHN STRANGE, OF THE STRANGE PAPER COMPANY.

Examined by the chairman.

The CHAIRMAN. Will you give us your name?

Mr. STRANGE. John Strange.

The CHAIRMAN. Your company?

Mr. STRANGE. One of our companies is the Strange Paper Company.

The CHAIRMAN. Located where?

Mr. STRANGE. At Menasha.

The CHAIRMAN. You are, I believe, the Republican candidate for lieutenant-governor of the State?

Mr. STRANGE. Yes, sir; I am.

The CHAIRMAN. Will you give us any information you have on the question of the pulp-wood supply, future and present?

Mr. STRANGE. My judgment is so inflated and so exaggerated as compared to my associates in the business that I am almost delicate about expressing it. Personally, I believe that the United States possesses four times as much timber for pulp-wood purposes as it will ever need with any conservation worth calling conservation. As an illustration of the lack of knowledge in reference to the supply of timber, I would like to cite an instance: On the Palouse River, running through Idaho and parts of Washington into the celebrated Palouse fruit and wheat belt, some years ago I had an option for the

purchase of what seemed to be all the available supply of lumber on that river, and it was estimated that the timber would cut about two hundred millions. I permitted the option to lapse and the Weyerhaeuser syndicate went in there and bought it and two years ago they owned 5 billion feet of timber and built the greatest sawmill in the world on the Palouse River.

The CHAIRMAN. The 200 million had developed into 5 billion?

Mr. STRANGE. They bought 5 billion feet on the river and own it to-day or did own it until the time they began to cut it. I claim there are 25 to 50 billion feet of paper timber in the States of Washington and Oregon, more than enough to supply all the needs for paper making for all time in those two States alone.

Mr. RYAN. All the needs of the United States?

Mr. STRANGE. All the needs of the United States.

The CHAIRMAN. What would happen to the paper mills of the East if they were obliged to depend on pulp wood that came from Oregon and Washington?

Mr. STRANGE. In my judgment, ultimately the great manufacturing paper interests of the United States will be situated in the West and not in the East.

The CHAIRMAN. That would mean shipping paper east from Oregon?

Mr. STRANGE. By water, supplying New York City and all the eastern market direct from the sea coast on the Pacific.

The CHAIRMAN. That is, to ship the paper down the Pacific coast?

Mr. STRANGE. Through the new canal ultimately.

The CHAIRMAN. Take it to the sea coast and ship it back East?

Mr. STRANGE. Take it right on the vessels and unload it on the eastern seaboard where it is needed.

The CHAIRMAN. Unfortunately, all the newspapers are not published on tide water.

Mr. STRANGE. Raw material. Ship the paper to New York and supply the demand from there. Of course, there is a good deal of information that I consider almost suicidal and almost criminal to disclose at this time, because there is a mania for butchering timber and always has been in the United States. The desire to accumulate great fortunes rapidly is destroying the forests. That has been the mania that has destroyed the forests of Minnesota and Wisconsin and Michigan to a large extent. It is almost criminal in its character. I have spent a month with the greatest timber man in the United States, at a time, going through the forests of the West, and when I had this option for the purchase of this Palouse country timber, he says, "John, you are crazy; there isn't any timber on that river." He visited me about a month ago and I said, "Mr. Hewitt, what do you think about the Palouse territory, with the Weyerhaeuser people owning to-day 5 billion feet, and you didn't think there were 200 million on the river? And yet you are the best informed man in the United States on the question of timber supply." He is worth \$15,000,000 or \$20,000,000 and has spent his entire life in the forest nearly.

The CHAIRMAN. Who is this?

Mr. STRANGE. Henry Hewitt, jr., of Tacoma. They cut in one of their mills 125 million a year. There is not less than 25 billion of the finest hemlock that ever grew in the world in the States of Wash-

ington and Oregon alone. Twenty-five billion feet. Practically worthless. It can be bought to-day and should be bought by the Government or some great interest that would conserve it, and there is enough to supply all the paper mills need for centuries.

The CHAIRMAN. Who owns that now?

Mr. STRANGE. That is owned by the Weyerhaeuser syndicate.

The CHAIRMAN. Where did they get it?

Mr. STRANGE. From the Northern Pacific Railroad Company, and they got it from the Government. The Government made the mistake of its existence in giving it to them. If I was asked my opinion, I should advise the repurchase by the Government of the timber owned by the Weyerhaeuser people and the conservation of the timber.

The CHAIRMAN. How long do you think it would be after the Government purchased it before you gentlemen in the business who are using timber would insist and obtain the assistance of others in proclaiming that natural resources were made to be used?

Mr. STRANGE. I do not take that stand at all. Men should be patriotic in these matters and not selfish. Personally, I have no desire to denude the forests myself at the expense of coming generations. I think that spirit should become generally manifested. It is murderous to permit the practices that have existed permitting one corporation to go into possession of hundreds of thousands of acres of land at a nominal cost with no thought in it except to butcher it. It is the most vicious system that ever was permitted to exist in my judgment.

Mr. RYAN. If people generally thought as you do, there wouldn't be any necessity of investigations of this character.

The CHAIRMAN. What a man thinks and what a man does under the existing law have no relation to each other.

Mr. STRANGE. There are men who consider the coming generations to some extent.

The CHAIRMAN. They have to consider competition.

Mr. STRANGE. I have positively refused, time and time again, to disclose information that I have. I know a State that has as good spruce as lies out of doors that has never been mentioned in connection with this investigation. It lies there to-day, and the policy of the Government in insisting on its being cut within 2 or 3 years is one of the most vicious things I know of. Montana itself has one of the most available and valuable supplies of spruce timber of any State in the Union, and water power and opportunities of developing a great industry, and yet the Government, selling that land, insists on your cutting it off about as fast as you can get in there and butcher it, with, of course, some show of conservation.

The CHAIRMAN. What land does the Government sell out there?

Mr. STRANGE. They sell the timber, and insist that you shall cut it off, within four or five years, a certain way.

The CHAIRMAN. Is that the Forestry Bureau that is doing that?

Mr. STRANGE. Yes, sir.

The CHAIRMAN. They sell what timber?

Mr. STRANGE. Spruce and pine and fir, and all timber out there.

The CHAIRMAN. They sell only the timber that is to be cut, that is marked?

Mr. STRANGE. They sell that. Of course, the conservation is reasonable, but why should they compel you to cut off ten or fifteen

million under perhaps adverse commercial conditions? Why hurry it?

The CHAIRMAN. I am only trying to get the information.

Mr. STRANGE. The Weyerhaeuser syndicate is obliged to cut that five billion feet off within six or seven years, and they built a mill cutting 750,000 feet of lumber per year, and butchered that timber, and they have got to do it to-day, notwithstanding the depressed lumber condition.

The CHAIRMAN. Why do you use the term "butcher?"

Mr. STRANGE. Because it is nothing but butchery. Why should a man in felling a big tree deliberately destroy half a dozen small saplings?

The CHAIRMAN. Does he destroy them?

Mr. STRANGE. Yes, sir. I have not been there, but I have had a man, who is one of the best lumbermen that I know of anywhere, and he criticises the Department very severely. I do not know of my own knowledge except what he tells me, and that is that the interests of the Government are not conserved there as they should be, conscientiously I mean.

The CHAIRMAN. They have people there for that purpose?

Mr. STRANGE. Yes, sir.

The CHAIRMAN. Under the Forester?

Mr. STRANGE. Yes, sir.

The CHAIRMAN. I am afraid your man is prejudiced.

Mr. STRANGE. No; he is absolutely a fair-minded man.

The CHAIRMAN. I presume most of these gentlemen who are representing the Government out there are young foresters, and they may not be quite as practical as they will be when they become older and more experienced.

Mr. STRANGE. That is true. The conservation on the part of Minnesota probably is the best of any place. They have got an immense supply of pulp wood there and they have an admirable conservation law. By the way, you asked Mr. Smith a question that I might answer you. The Arpens, of Grand Rapids, Wis., own a large quantity of spruce in Minnesota, and Mr. W. D. Conner has about 15,000 acres of spruce lands in Minnesota, and both of them are very familiar with lands generally in Minnesota. You can reach them both at Grand Rapids.

The CHAIRMAN. Do you use any wood in your mills?

Mr. STRANGE. Yes, sir.

The CHAIRMAN. What kind of wood?

Mr. STRANGE. We use wood pulp, a coarse grade of wood. We use pine pulp.

The CHAIRMAN. Do you make your own wood pulp?

Mr. STRANGE. No, we buy that.

The CHAIRMAN. Do you use any pulp wood?

Mr. STRANGE. No, not in this Strange mill.

The CHAIRMAN. Do you use pulp wood in any of your mills?

Mr. STRANGE. I have an interest over here in this mill on the island that uses pulp.

The CHAIRMAN. Do you know how they buy their pulp wood?

Mr. STRANGE. They buy it from the farmer and the store men direct.

The CHAIRMAN. What is the name of the company?

Mr. STRANGE. The Wood Supply Company. We have no connection with that.

The CHAIRMAN. I want to get somebody at some time to testify as to that. The Wood Supply Company ought to have a pretty fair knowledge of the present available supply of pulp wood.

Mr. STRANGE. I do not think any one can have a knowledge unless he is a practical lumberman and an estimator of timber, such a man as Mr. Smith or somebody who has spent a great deal of time with a view of ascertaining the standing timber, and not for the purpose of buying pulp wood.

The CHAIRMAN. Men who are in the business of buying pulp wood would have considerable knowledge as to the available supply of pulp wood?

Mr. STRANGE. Yes, the amount offered on the market.

The CHAIRMAN. And as to the methods of picking that up?

Mr. STRANGE. Yes.

The CHAIRMAN. How much of it comes from the farmer who cuts off his own wood lot?

Mr. STRANGE. Yes, a great many country merchants buy from the farmers and will contract. For instance, we have at the mill probably half a dozen country merchants who will agree to furnish from 1,000 to 2,000 or 3,000 or 4,000 cords per year.

The CHAIRMAN. Is that wood generally wood that is cut by the farmer for the purpose of clearing his land for agricultural purposes?

Mr. STRANGE. Yes, generally. Of course he conserves that for an income. Perhaps for ten years he will cut off 25 or 30 acres per year and keep that as an investment for a number of years.

The CHAIRMAN. But is it the purpose of the farmer to eventually get his land cleared for agricultural purposes?

Mr. STRANGE. Yes, sir.

The CHAIRMAN. His ground is worth more to him to raise annual crops on than to raise tree crops?

Mr. STRANGE. Yes, sir. Land all over that cut-over country is selling to-day at \$50 to \$60 or \$70 an acre. It is one of the best dairy and hay countries in the United States.

The CHAIRMAN. You do not consider it practical, I suppose, to raise forests on land worth \$50 or \$60 an acre, or even \$15 or \$16 an acre, do you?

Mr. STRANGE. Well, I don't know as to \$15 how that would figure out. I would have to figure some on that, but there is so much land in Wisconsin that is not valuable for agricultural purposes that it has developed this large poplar so rapidly that I think it will be a source of profit to everyone of those cheap landowners to cultivate the poplar.

The CHAIRMAN. When the tariff was first put on mechanical pulp, especially at the time of the McKinley tariff bill, when the question of the tariff on wood pulp was up, the principal argument that was made, I think, before the Ways and Means Committee was that we ought to encourage the raising of poplar.

Mr. STRANGE. A very good argument.

The CHAIRMAN. But I noticed that although that argument prevailed the consumption of poplar for the purpose of making wood pulp has been decreasing.

Mr. STRANGE. Yes.

The CHAIRMAN. Instead of increasing.

Mr. STRANGE. Yes.

The CHAIRMAN. Is that because there is no demand for the soda pulp?

Mr. STRANGE. No.

The CHAIRMAN. I mean not sufficient demand.

Mr. STRANGE. There is no soda pulp manufactured in the Northwest. I don't know why.

The CHAIRMAN. There is plenty of poplar.

Mr. STRANGE. In the South they manufacture that soda pulp at a less price a good deal than the North can, because of their immense supply of the cottonwood and poplar in the South. There is a very large mill in North Carolina.

The CHAIRMAN. The greatest production of soda pulp is in Pennsylvania.

Mr. STRANGE. The largest mill; yes.

The CHAIRMAN. The large factory to which you refer is a new one in North Carolina?

Mr. STRANGE. There are two there, I believe, and one uses about 600 cords of wood a day.

The CHAIRMAN. I think that does not use poplar very much.

Mr. STRANGE. It can use poplar. Of course Muncie uses poplar altogether. I do not know that it is absolutely necessary to have spruce to make print paper with. Many of our men now are finding they can grind other grades of wood more satisfactorily. There is no reason why other wood can not be utilized.

The CHAIRMAN. I suppose it is a self-evident proposition that it is not necessary to have spruce to make paper?

Mr. STRANGE. That is true.

The CHAIRMAN. But the question is, whether it is necessary to have spruce to make cheap news print paper.

Mr. STRANGE. I do not think so. I shipped some ten years ago 16 cords of four different kinds of wood from Washington and put it into pulp here as a test. I have been west several times with a view of doing some development along those lines. I wanted to make an experiment as to white fir, which is almost a worthless wood out there, and I shipped 4 cords of that and it made very good pulp. It has practically no value all through the West, yet it is good paper-making pulp. The fir out there made splendid pulp contrary to the expectation of everybody, except Mr. Hewitt, who insisted upon my putting it in. He says, try it; and really it was a very good ground wood. Of course we don't know anything about the chemistry of paper making or the treating of wood chemically in this country. It requires some ability and thought and some study along those lines before other wood can be utilized. It is easy to make paper of spruce. It is the best wood there is. Anybody can make print paper out of spruce wood.

The CHAIRMAN. In your judgment, is there a sufficient supply of pulp wood or timber that can be used for the production of pulp wood in Wisconsin and Minnesota to furnish pulp wood for the pulp-wood mills in these two States?

Mr. STRANGE. I would include a Western State in that, and I think timber can be shipped from Montana here advantageously.

I do not see any reason why a rate can not be made from Montana to justify the delivery of wood here at a reasonable cost.

The CHAIRMAN. Is there any large amount of forest in Montana?

Mr. STRANGE. Yes.

The CHAIRMAN. Good forest?

Mr. STRANGE. Excellent, the finest out of doors.

The CHAIRMAN. Do you know what the freight rate is?

Mr. STRANGE. The rate has not been fixed. Over this end on this side of the divide the rate ought to be low enough and it could be made low enough to justify shipping that wood to Minnesota and Wisconsin.

The CHAIRMAN. They have more or less water power in Montana?

Mr. STRANGE. Excellent water power.

The CHAIRMAN. How long do you think it would be if they shipped pulp wood by rail from Montana to the wood-pulp mills in Wisconsin before they commenced to manufacture it with the aid of the water power out there?

Mr. STRANGE. There are questions involved in that that are difficult to answer. If you will let me divert a little from the paper business, I will cite an instance. Six years ago a large sash and door factory of Oshkosh went out of business, practically because they could not see any raw material supply, and they thought that doors from California pine and fir could be made at less cost on the Pacific coast and supplied to the eastern trade than Wisconsin could make them and ship the raw material here and manufacture and send to the consumer in the East. My son-in-law happened to be residuary legatee of this particular property and I prevailed upon a young man in the office and a few others to organize the McMillan Company, and I said there is more assurance of pine and raw material to-day than ever there was in the history of the sash and door business in Oshkosh. Through my efforts a company was incorporated and to-day it is manufacturing about 600 doors a day, 300 or 400 of them veneered doors with a cheap core; hemlock, or anything will do for cores. There were large factories built up in the West as rivals, but none of them could succeed as against the local factories, because the consumption is all east of us, the great wealth of the nation is east of us. Labor is 25 or 30 per cent higher on the Pacific coast than in this immediate vicinity and will be for a long time to come. Paying freight on the raw material of pulp and paper, in my judgment, would enable the local manufacturer to do the milling in transit and ship to his consumer at a less price than the western mills could manufacture. That has proven true of the sash and door business, and to-day the Paine Lumber Company, of Oshkosh, has constructed one of the largest sawmills in the United States at Oshkosh after the field had been abandoned, and they are the greatest sash and door manufacturers, the biggest corporation of the kind in the world, with an available supply greater than they ever had at any time in their history. These peculiar speculations as to the exhaustion of the natural resources I do not take much stock in. I think that the forestry reports furnished Mr. Roosevelt are the most ridiculous things that ever were suggested for consideration, because I spent months and months in the forests myself, in the South and West, in Wisconsin and all over, and I have some knowledge of the supply. I think the South itself has a wonderful supply, I won't undertake to

say how much, of spruce or other woods. I had a letter a short time ago from John W. Gates, who is building up great industries there. I would like to have you talk with him as to spruce and other paper material in the South. A company organized in Indiana, a short time ago, bought what they claim to be 100 million feet of spruce grown on old plantations to manufacture wooden ware from small timber 8 or 10 or 12 inches in diameter, but excellent material for paper and wooden ware. Poplar will grow three-fourths of an inch a year and makes good paper. We could grow so much pulp material that we wouldn't know what to do with it if we had any consideration for the future in doing so. We don't need one solitary stick of Canadian wood nor will we ever need it. It is a question of making a good deal with Canada in my judgment, and we have all of the strength and every advantage in the negotiation.

The CHAIRMAN. Take the situation as to the pulp mills in Wisconsin. Where do they now get most of their supply of pulp wood, from Wisconsin?

Mr. STRANGE. No, they get a good deal from Minnesota. Wisconsin never was very much of a spruce State.

The CHAIRMAN. Mr. Smith was of the opinion that there was hemlock enough in Wisconsin to furnish an inexhaustible supply for the future users of pulp wood. Do you agree with him about that?

Mr. STRANGE. I think, myself, that if it was absolutely necessary to do so you could not only make your sulphite but your ground wood from hemlock and supply the mills of Wisconsin for twenty-five or more years and make a very good grade of paper, putting in a nominal amount of poplar.

The CHAIRMAN. You do not think that will be done, do you?

Mr. STRANGE. Yes, why not?

The CHAIRMAN. You do not think the Wisconsin mills will cease purchasing spruce wood in Minnesota?

Mr. STRANGE. No. That is an available market, the rate is nominal, and we are practically one, commercially speaking. There is no reason why we should not be. They have gone up there and purchased large holdings of timber and the mistake they made was they didn't supply themselves with larger holdings.

The CHAIRMAN. You speak of bringing wood from Montana. Why isn't it more available to bring wood from Ontario?

Mr. STRANGE. It is, if they will waive the export duties. I do not know that it is more available. I don't know that it will cost very much less. I think it can be brought from Montana just as cheaply. What traffic arrangements the railroad companies will have with reference to that I do not know. They ought to make a low enough rate. I figure that they can afford to make a low enough rate to ship it here and still make money on the deal. I expect to go out there next week if I can get away. Before going I calculate to take it up with the railroad companies. They won't do it voluntarily.

The CHAIRMAN. They would be more likely to do it, I suppose, if they met with the competition of Canadian pulp wood.

Mr. STRANGE. I do not think that. Of course, the railroads have a mania for meeting competition without reference to the profit in it. Whether that would impel them to go on to their own destruction, as they have in the past, I don't know. There is no consistency in railroading.

The CHAIRMAN. I have listened to arguments upon that subject from nearly all the leading railroad men of the country for twelve years, and we won't go into that. What would you say would be the effect of taking the tariff off of ground pulp if the Wisconsin River mills could obtain their pulp wood from Canada without any export restriction or charges?

Mr. STRANGE. If they would waive the export duty on wood pulp, I would be willing to take a chance individually on waiving it on ground wood.

The CHAIRMAN. By the export duty on wood pulp you mean the export restriction on wood pulp.

Mr. STRANGE. Permit pulp wood to come in here free. 'Let them both come in here free.

Mr. RYAN. Wood pulp and pulp wood?

Mr. STRANGE. Yes. If you can make a deal of that kind, I would say make it, although I don't think it is good logic. I think it is a contradiction of the very policy we have advocated, home first and the world afterwards. I think we have facilities for building it up independent of Canada.

The CHAIRMAN. I am asking now for the purpose of getting at the point of view of the Wisconsin mills, which, I suppose, if there is any place in the country where it may be in any way dependent upon Canadian pulp wood, is here?

Mr. STRANGE. Yes; Wisconsin and Michigan.

The CHAIRMAN. Of course, the mills of New York may be in the same fix.

Mr. STRANGE. Of course, we are not great manufacturers of print paper in Wisconsin.

The CHAIRMAN. The situation does not relate merely to print paper. Print paper is the cheapest class of paper, but you will have to use pulp wood in nearly all of your papers.

Mr. STRANGE. Yes. We use wood of different kinds.

The CHAIRMAN. You use sulphite in nearly everything, more or less, don't you?

Mr. STRANGE. Yes. Of course we buy a good deal of foreign pulp.

The CHAIRMAN. Why do you buy foreign sulphite?

Mr. STRANGE. Because it is far superior to the domestic.

The CHAIRMAN. It is not simply a matter of price, then?

Mr. STRANGE. It is a matter of price, but we get so much more for our paper that we can afford to pay the increased price for the foreign stock.

The CHAIRMAN. It was suggested by Mr. Jones, of Maine, that the tariff on sulphite ought to be increased 100 per cent. What do you say as to that?

Mr. STRANGE. I guess I would have to demur.

The CHAIRMAN. Do you need that foreign sulphite for the manufacture of high-grade paper?

Mr. STRANGE. There are certain grades of paper that we are making now that would be quite difficult for us, perhaps, to make with any domestic that I know of.

The CHAIRMAN. That is, the foreign sulphite is a little cleaner.

Mr. STRANGE. It is better and stronger, very much stronger. We sell it under a test as to strength and cleanliness that we can not get with any domestic that I have been able to reach.

The CHAIRMAN. It is made from the same material, isn't it?

Mr. STRANGE. Yes.

The CHAIRMAN. Spruce wood?

Mr. STRANGE. Spruce or pine.

The CHAIRMAN. Why should it be stronger?

Mr. STRANGE. Because they are experts in chemistry and we know nothing of chemistry.

The CHAIRMAN. That is an answer that I suppose is easy to make, but are you sure that is the reason?

Mr. STRANGE. I don't know of any other.

The CHAIRMAN. If we know nothing of chemistry, we don't know whether that is the reason or not.

Mr. STRANGE. The low-grade wood of which it is made would justify that conclusion to me.

Mr. RYAN. Their finished product is that much better?

Mr. STRANGE. Yes.

Mr. RYAN. Do they make it in the same manner?

Mr. STRANGE. About the same manner. They use a sulphate and a slower process.

Mr. RYAN. A slower process do they use?

Mr. STRANGE. Slower and different process; yes. They take more pains with it. I understand that the chemistry department of all these mills is a very important adjunct.

Mr. RYAN. We have no such department in America?

Mr. STRANGE. I don't know of any here. I never have met any.

Mr. RYAN. It is a wonder some one here doesn't try that.

Mr. STRANGE. For instance, I own an interest in one of the largest mills in Wisconsin, high-grade mill, and there is lots of information that we are obliged to obtain abroad and pay for it.

The CHAIRMAN. Of course, the Government is now conducting experiments on all these things.

Mr. STRANGE. It is a good thing to do.

The CHAIRMAN. Whether the information they obtain will be used by you gentlemen, no one can tell. As a rule, we find that the practical man sneers at the scientific man for a generation or two.

Mr. STRANGE. Yes; he has got to be a martyr, of course. I view this question, or try to, as it will concern not me, but those in generations to come.

The CHAIRMAN. What class of paper does the John Strange Mill make?

Mr. STRANGE. We make 50 different grades, I suppose. We make some print, make colored print, fibers, manila, and so on. We make straw chip board and combination board.

The CHAIRMAN. What is the capacity of your mill?

Mr. STRANGE. We ought to make 40 tons a day. We make print where we have cars going a long distance, a ton or two of print, but we can not make print paper at the market price which it is sold at a profit. I never could see any money in print paper for our mill.

Mr. RYAN. What market price do you refer to?

Mr. STRANGE. I never knew the time when we could make print paper for less than 2½ cents at the mill in sheets. I can't do it.

The CHAIRMAN. What is the situation of the market now as to pulp?

Mr. STRANGE. Owing to the drouth, pulp has increased in selling price, I guess, 30 per cent within thirty days.

STATEMENT OF W. S. TAYLOR, OF APPLETON, WIS.

Examined by the chairman.

The CHAIRMAN. Give us your name.

Mr. TAYLOR. W. S. Taylor.

The CHAIRMAN. Of what company?

Mr. TAYLOR. Of the Pulp Wood Company, of Appleton.

The CHAIRMAN. What is the Pulp Wood Company?

Mr. TAYLOR. An organization for the purpose of buying wood for a lot of different mills in the valley.

The CHAIRMAN. What mills in a general way do you buy paper wood for?

Mr. TAYLOR. Twelve different mills.

The CHAIRMAN. In the Fox River Valley?

Mr. TAYLOR. Yes, sir.

The CHAIRMAN. Do you buy any for the Wisconsin River Mills?

Mr. TAYLOR. No, sir.

The CHAIRMAN. What is your system of buying wood?

Mr. TAYLOR. We receive our orders from the different mills in the fall and buy from the lumbermen almost entirely, and from the store-keepers located in the small hamlets through the northern part of Michigan and Minnesota and Wisconsin.

Mr. RYAN. You buy just for a combination of mills?

Mr. TAYLOR. For this group of mills on this river.

The CHAIRMAN. I suppose the company is organized by the mills for the purpose of buying more cheaply?

Mr. TAYLOR. Not particularly that.

The CHAIRMAN. For furnishing a steady supply?

Mr. TAYLOR. To avoid these cross shipments.

The CHAIRMAN. Do you buy from the lumbermen in the main?

Mr. TAYLOR. Yes; almost entirely.

The CHAIRMAN. Does that mean that you buy the stuff at the saw mills which they can not saw into lumber?

Mr. TAYLOR. Yes, sir.

The CHAIRMAN. How much pulp wood do you handle a year?

Mr. TAYLOR. About 225,000 cords.

The CHAIRMAN. There is a plentiful supply of pulp wood at present?

Mr. TAYLOR. Yes, sir.

The CHAIRMAN. Nearly all the mills have a surplus on hand?

Mr. TAYLOR. Yes, sir.

The CHAIRMAN. When do you make contracts? Do you buy it by yearly contract?

Mr. TAYLOR. We make our contracts with the lumber concerns.

The CHAIRMAN. By the year?

Mr. TAYLOR. Say we start in along after the first of October and limit the time of delivery to May 1 of the next year.

The CHAIRMAN. What was the prevailing price of pulp wood, say last winter?

Mr. TAYLOR. At what point?

The CHAIRMAN. Any point. How do you buy the wood? Upon what basis?

Mr. TAYLOR. In our Minnesota district we buy on a basis of Duluth prices, delivered f. o. b. cars Duluth. The prevailing price last year was \$7.25 a cord, Duluth and territory taking the same rate.

The CHAIRMAN. That is spruce wood?

Mr. TAYLOR. Yes, sir.

The CHAIRMAN. What proportion of your supply did you get from Minnesota?

Mr. TAYLOR. Very close to half, I think.

The CHAIRMAN. You say \$7 and what?

Mr. TAYLOR. \$7.25 a cord.

The CHAIRMAN. F. o. b. Duluth. Is that the basis upon which you buy from the country merchants, or the basis upon which you made special contracts with saw-mill companies?

Mr. TAYLOR. In that district we do very little except with the big lumber operators. We do very little business in that district with any local fellows.

Mr. RYAN. That is what it cost the paper company, \$7.25 f. o. b. there?

Mr. TAYLOR. Yes.

The CHAIRMAN. That is what it costs your company?

Mr. TAYLOR. They pay the cost of buying it.

The CHAIRMAN. The administration charges and freight?

Mr. TAYLOR. Yes.

The CHAIRMAN. Is there a plentiful supply of pulp wood in Minnesota, spruce wood?

Mr. TAYLOR. There is a lot of spruce wood in Minnesota.

The CHAIRMAN. Do you have any difficulty at all in getting all you want?

Mr. TAYLOR. No, sir.

The CHAIRMAN. Of course, a year or so ago you did have; that was owing to the weather conditions?

Mr. TAYLOR. Entirely. We had no winter, you know. We had this condition to contend with up there; if the snow comes before the streams freeze, it is a very hard proposition. Our spruce all grows in swamp land. And if 16 inches of snow falls before the streams freeze, it is hard to get timber.

The CHAIRMAN. Do you mean you can not cut it?

Mr. TAYLOR. You can not get your teams in there. You have to go and break your roads down, and there is no freezing under 6 inches of snow on an open swamp. The only way to establish roads is to work the teams through and break them down. This year everything froze solid before a flake of snow came. In all the years I have been in this business, I never knew but one other year when that condition prevailed, and that I think was either five or six years ago.

The CHAIRMAN. If it freezes up first you have solid roads?

Mr. TAYLOR. Yes. You can go anywhere.

The CHAIRMAN. On the ice you mean?

Mr. TAYLOR. Not necessarily. It freezes the ground, the wet ground, so that you can work a horse over it.

The CHAIRMAN. If it doesn't freeze the horses sink in, you mean?

Mr. TAYLOR. That is the idea. You can not work them in a swamp until the frost comes.

The CHAIRMAN. Was that the reason for the shortage of wood a year ago last winter?

Mr. TAYLOR. Yes, sir. That was one reason.

The CHAIRMAN. I think they told us before it was because there was no snow; that they couldn't get the wood out, because there was a lack of snow.

Mr. TAYLOR. You can always get the wood out when the swamps are frozen solid. At least, I have never seen a year when there was not snow enough to get the stuff out if you could get into the swamps.

The CHAIRMAN. You need snow to get the logs out?

Mr. TAYLOR. A little snow; but you make ice roads if your weather is cold, if you have the ground frozen. Snow is an advantage, if you don't get too much of it.

The CHAIRMAN. How much of that Minnesota wood is being operated in?

Mr. TAYLOR. As to the territory, do you mean?

The CHAIRMAN. Yes.

Mr. TAYLOR. There has nothing been done in the northern part of the State; absolutely nothing.

The CHAIRMAN. Is there good spruce forest clear up to the north?

Mr. TAYLOR. To the international line; yes, sir.

The CHAIRMAN. And beyond?

Mr. TAYLOR. In Canada, north of the river, I never have been personally. I understand there is lots of timber in that part of Ontario, but personally I have seen Minnesota and a great deal of Ontario, but nothing west of Port Arthur.

The CHAIRMAN. Where have you been in Ontario?

Mr. TAYLOR. All through that north-shore district, from the Soo to Port Arthur.

The CHAIRMAN. What kind of spruce timber is there there?

Mr. TAYLOR. Lots of it, and good, too. The quality is good.

The CHAIRMAN. Is there any way of getting it down to the lake?

Mr. TAYLOR. If you don't get over the height of the land you can bring it down by streams. That is the only way.

The CHAIRMAN. To get it into Lake Superior you would have to raft it down?

Mr. TAYLOR. Drive it down the streams.

The CHAIRMAN. These streams do not run very far north?

Mr. TAYLOR. I think the height of the land averages about 40 miles back from Lake Superior.

The CHAIRMAN. The rest of the way the streams run north?

Mr. TAYLOR. Yes.

The CHAIRMAN. Would it be practical to bring Canadian logs from the other side of the Divide down to Lake Superior?

Mr. TAYLOR. I don't know how you would do it? There is no railroad in that country.

The CHAIRMAN. It could not be done without a railroad being there?

Mr. TAYLOR. No. That would be the only method of handling it.

The CHAIRMAN. Isn't there a railroad up through there?

Mr. TAYLOR. Nothing north of the C. P. R. at present, as I understand.

The CHAIRMAN. How far is that north of the north line of Lake Superior?

Mr. TAYLOR. It runs close to the shore all the way up from Sudbury Junction to Port Arthur. It probably doesn't average more than five to ten miles from the shore of Lake Superior.

The CHAIRMAN. It would be a simple matter to make spurs through that forest, wouldn't it?

Mr. TAYLOR. Not so simple a matter. That is a pretty rough country. That probably would mean 40 or 50 or 60 miles of spur track in most cases.

The CHAIRMAN. You say it is a rough country?

Mr. TAYLOR. A very rough country.

The CHAIRMAN. I supposed it was more of a level country.

Mr. TAYLOR. A very rough country.

The CHAIRMAN. I think we will have to go up there and see.

Mr. TAYLOR. Don't misunderstand me. I am speaking of the country adjacent to the shore. After you get back above the height of the land—from personal observation I never have seen it.

The CHAIRMAN. That is what I have reference to.

Mr. TAYLOR. Possibly you are right as to that. That may be a level tract. But you have got to get your tracks back from the C. P. R. main line, which runs very close to the shore all the way around there.

The CHAIRMAN. Is the forest in the northern portion of Minnesota virgin forest?

Mr. TAYLOR. Oh, yes.

The CHAIRMAN. Or has the pine been cut off?

Mr. TAYLOR. There has very little pine been cut well north. Along the shore near to the border there has been considerable pine cut out. But going back from the lake and north to the international line there has been no operation in there. I have personally been through a great deal of that country.

The CHAIRMAN. It is a question there of the railroad facilities?

Mr. TAYLOR. That is all. The same conditions prevail there, to a certain extent, as they do in Canada.

The CHAIRMAN. That country up there is rather full of water, isn't it?

Mr. TAYLOR. Yes; there are a lot of lakes in Minnesota.

The CHAIRMAN. You refer to up in the neighborhood of the headwaters of the Mississippi?

Mr. TAYLOR. You are getting away farther north than that. The headwaters of the Mississippi are not north at all. Really that is west from Duluth, taking that as a point.

The CHAIRMAN. What are the freight rates from there down here?

Mr. TAYLOR. Our rate of freight from Duluth into the Fox River Valley is 8 cents a hundred.

The CHAIRMAN. Do you bring it down by rail?

Mr. TAYLOR. A large portion of it.

The CHAIRMAN. Do you bring any by water?

Mr. TAYLOR. Yes, sir.

The CHAIRMAN. Come around by Duluth?

Mr. TAYLOR. We come by the way of the Soo, and we have handled stuff to Ashland by water and on the cars from there, and also into Duluth and on the cars from there.

The CHAIRMAN. You do not make any use of car ferries, do you?

Mr. TAYLOR. No; we never have. There are no car ferries operating in that country, you know.

The CHAIRMAN. How about Wisconsin? How do you pick up your wood here?

Mr. TAYLOR. We get very little spruce in Wisconsin; our hemlock all comes from Wisconsin.

The CHAIRMAN. Fifty per cent of your wood is spruce?

Mr. TAYLOR. About; yes, sir.

Mr. RYAN. How do you pick up lumber in Wisconsin?

Mr. TAYLOR. Very much the same way. We deal perhaps more largely with the large owners of hemlock stumpage, dealing almost entirely directly with the lumbermen.

The CHAIRMAN. I thought you said you dealt almost entirely with the lumbermen in Minnesota.

Mr. TAYLOR. It is cedar operators that produce our stuff in the spruce line more largely than the sawmill men.

The CHAIRMAN. What are the cedar operators?

Mr. TAYLOR. People that produce poles and posts and ties and all sorts of cedar products. For this reason that it grows on the same land; that is, a 40 would produce a couple of thousand ties and you would get on that 40 maybe 100 or 150 acres of spruce growing on some part of the 40. The timber grows together.

The CHAIRMAN. They cut it clean?

Mr. TAYLOR. They cut it clean, cut spruce down to 4 inches and cedar posts down to 4 or 5 inches.

The CHAIRMAN. Where you cut down to 4 inches on these forests, is there anything left?

Mr. TAYLOR. Absolutely nothing.

The CHAIRMAN. Of any value?

Mr. TAYLOR. No, sir.

The CHAIRMAN. There isn't much stuff under 4 inches in a virgin forest, is there?

Mr. TAYLOR. Anything that is left burns just as sure as there is a dry fall or spring.

The CHAIRMAN. Who owns those forests?

Mr. TAYLOR. Lots of them are owned by the State, and lots of them are sold by the State, and they are owned by the big operators usually.

The CHAIRMAN. Under the forest conservation law of Minnesota, is there any tendency there to maintain the forests?

Mr. TAYLOR. Not that I have ever been able to observe.

The CHAIRMAN. When it is cut over it is practically ended as forest?

Mr. TAYLOR. When a forest is cut over where there is any soft timber like pine, or cedar or spruce cut, you can be absolutely certain that within the next two or three years a fire will clean it just as clean as the top of this table.

The CHAIRMAN. Does it afterwards grow up?

Mr. TAYLOR. To something entirely foreign, my experience has been. That is, little white poplar and timber of no value particularly, timber entirely foreign to the original growth.

The CHAIRMAN. Is that likely to burn up again soon?

Mr. TAYLOR. Exactly, the first time it gets dry, with scarcely a single exception. Sometimes it stands for ten years, but the fire gets in eventually.

Mr. RYAN. What starts the fires?

Mr. TAYLOR. That is a question a lot of us would like to find out about now. Hunters and railroad trains and a hundred other things. We have been trying to find out for twenty years.

Mr. RYAN. When the poplar forests burn down, then what?

Mr. TAYLOR. I never saw but one place, and that was up in Canada, where the original timber had burned, for the growth of underbrush where poplar forests grow is very sparse. It does not kindle a fire; a fire won't run in it the same as in a cedar or spruce swamp.

The CHAIRMAN. This poplar you speak of up there, what is it, cottonwood?

Mr. TAYLOR. No, it is regular white poplar. It is our regular native poplar. These people talked to me about cottonwood. But as I understand cottonwood, it is a tree that is planted for shade, and that is nothing similar to our poplar.

The CHAIRMAN. A cottonwood tree is very seldom planted for shade. The Carolina poplar is the male tree propagated from cuttings. There are male and female trees in the poplar, and the female tree, which of course is the seed tree, propagates by this cottonwood seed, but the whole tribe is called cottonwood, except the aspen tree, which belongs to another family.

Mr. TAYLOR. There is a lot of difference between what we call cottonwood in this State and Michigan. We consider cottonwood as absolutely worthless and used to when we used poplar for paper making on quite a large scale.

The CHAIRMAN. There is absolutely no difference between the cottonwood and the poplar, except that the poplar family covers a good deal more than the cottonwood, and I undertake to say that the stuff that grows up there is yellow aspen and never gets very big.

Mr. TAYLOR. I have seen it in Canada a foot and a foot and a half through on the stump.

The CHAIRMAN. Cottonwood grows in Canada?

Mr. TAYLOR. That is what we call poplar.

The CHAIRMAN. I know they call it poplar. They call it "popple" up here. To return to the Wisconsin proposition, do you buy much of your wood through the country merchants?

Mr. TAYLOR. In hemlock, the small stuff, quite a little of it.

The CHAIRMAN. You can not get any spruce wood in Wisconsin now, can you?

Mr. TAYLOR. Not a large amount of it. Wisconsin never was a great spruce country.

Mr. RYAN. How do you get that wood that you buy from country merchants to the point of destination?

Mr. TAYLOR. They load it. We make contracts. We go into a little town and make contracts with some country merchant for three or four hundred cords of wood. He takes a chance on filling that contract, buying it from the settlers, a little here and a little there, knowing from experience that he can produce about this amount of stuff.

Mr. RYAN. Bring it down on cars or on the river?

Mr. TAYLOR. On cars altogether.

The CHAIRMAN. He will buy that wood whether he has a contract or not, won't he?

Mr. TAYLOR. In some instances, I think so.

The CHAIRMAN. Do you send somebody around to see all these country merchants?

Mr. TAYLOR. Yes, sir.

The CHAIRMAN. What do you think is going to be the price of wood next year?

Mr. TAYLOR. I can not tell you. It will be much less than it was last year.

The CHAIRMAN. You have a surplus stock on hand?

Mr. TAYLOR. Yes, sir.

The CHAIRMAN. Do you start to make your contracts before the weather conditions determine how much wood can be gotten out?

Mr. TAYLOR. We start making our contracts as soon as the mills place their orders with us.

The CHAIRMAN. The price of paper is down at present?

Mr. TAYLOR. That I can not tell you anything about.

The CHAIRMAN. Naturally they want to put the price of pulp wood down. Do many of the mills own pulp wood lands?

Mr. TAYLOR. Most of the mills have large holdings of hemlock land.

The CHAIRMAN. Do they cut much of their own pulp wood?

Mr. TAYLOR. Some every year.

The CHAIRMAN. Do you think there is any danger of there being a shortage of pulp wood in Wisconsin?

Mr. TAYLOR. Not during the life of us gentlemen.

The CHAIRMAN. Do you think that the forests of Wisconsin and Minnesota are amply able to provide all the pulp wood that may be needed for many years to come by the western mills?

Mr. TAYLOR. By this group of mills in Wisconsin, and Michigan, and Minnesota.

The CHAIRMAN. There will be some new mills started, I suppose?

Mr. TAYLOR. I understand there are some talked of now.

The CHAIRMAN. Is there a river dam being constructed up there, partly for the purpose of establishing new mills?

Mr. TAYLOR. That is what I have in mind. I think they figure on building a mill up there.

The CHAIRMAN. Do you want to ask Mr. Taylor anything, Mr. Norris?

Mr. NORRIS. No, sir.

The CHAIRMAN. How about the Wisconsin River mills, where do they get their supply of pulp wood from?

Mr. TAYLOR. Through practically the same source of supply.

The CHAIRMAN. Do they have a buying company?

Mr. TAYLOR. I think they have, yes, sir.

The CHAIRMAN. Do you come in competition with them?

Mr. TAYLOR. Yes, sir.

The CHAIRMAN. I should think you would know whether they had a buying company or not.

Mr. TAYLOR. I do know.

The CHAIRMAN. What is the name of their company?

Mr. TAYLOR. Northern Paper Company.

The CHAIRMAN. That is a company to buy pulp wood?

Mr. TAYLOR. Yes, sir.

Mr. RYAN. That is located at Grand Rapids, isn't it?

Mr. TAYLOR. Yes, sir.

The CHAIRMAN. Would you like to ask Mr. Taylor any questions, Mr. Sensenbrenner?

Mr. SENSENBRENNER. Just one. I would like to ask if it is not the fact that the price of pulp wood during the past year preceding this past season was influenced very largely by the lumber market or the price of lumber?

Mr. TAYLOR. It establishes our price nearly every year.

The CHAIRMAN. You say that the largest part of your pulp wood comes from the operators in the forests?

Mr. TAYLOR. Yes, sir.

The CHAIRMAN. In this state you purchase hemlock. Most of that hemlock can be used either for lumber or pulp wood, I suppose.

Mr. TAYLOR. We use the small stuff, very much smaller than the lumbermen use it, and what we call shaky butts, if it is sound and not black, we use that. We have the advantage of being able to take a great deal of material that the lumbermen can not use.

The CHAIRMAN. A great deal of wood which would be thrown away if you did not use it for pulp-wood purposes. But how about the good logs? What were they used for last winter, lumber or pulp wood?

Mr. TAYLOR. We bought a lot of logs last year.

The CHAIRMAN. That were usable for sawmill purposes?

Mr. TAYLOR. Yes, sir.

The CHAIRMAN. Why were they not used by the sawmills?

Mr. TAYLOR. I don't know, unless the lumber market didn't warrant sawing.

The CHAIRMAN. You had contracts with these people?

Mr. TAYLOR. Yes, sir.

The CHAIRMAN. With a maximum and minimum amount to be delivered?

Mr. TAYLOR. Yes, sir.

The CHAIRMAN. What did they deliver in most cases? The maximum amount or the minimum amount?

Mr. TAYLOR. The minimum usually. It is very seldom that we get the maximum in our contracts.

Mr. RYAN. What other purpose is spruce used for?

Mr. TAYLOR. Some spruce is sawed into lumber, some of the larger spruce.

Mr. RYAN. Is it the size of spruce that you use for pulp wood?

Mr. TAYLOR. No; we can use it much smaller than it can be sawed profitably.

Mr. RYAN. Why, then, does the price of the lumber in the lumber market regulate the price that you pay for pulp wood?

Mr. TAYLOR. It applies more particularly to hemlock, although there is a great deal of large spruce that we get.

The CHAIRMAN. Of course, if the lumber market is very high you don't get any of the big timber for pulp wood?

Mr. TAYLOR. That is true.

The CHAIRMAN. What do they make out of hemlock? What kind of lumber?

Mr. TAYLOR. All kinds.

Mr. RYAN. What timber is meant by heavy logs?

Mr. TAYLOR. Anywhere from 8 inches up. There are plenty saw-mills in Minnesota using spruce logs 6 inches. The larger the better, of course. Spruce in our part of the country is not large growing timber. Not like western timber.

The CHAIRMAN. How long have they been using hemlock for saw-mill purposes to any great extent up here?

Mr. TAYLOR. Fifteen or twenty years anyway. As long as I have been in the timber business. Twenty years or more.

The CHAIRMAN. Didn't they use to cut out the white pine and leave the hemlock standing?

Mr. TAYLOR. White pine and hemlock don't grow on the same land very generally. Hemlock is classed as a hard wood. It doesn't grow where pine grows, generally speaking.

The CHAIRMAN. Hemlock is more apt to grow in swampy places, isn't it?

Mr. TAYLOR. It grows where pine don't grow, anyway. Mr. Smith explained that by saying that where hemlock grows the lands are good farm lands. Where pine grows exclusively, the lands are not of so great value.

Mr. SENSENBRENNER. Isn't it a fact that during this past season nearly every one of your contractors furnished the maximum and endeavored to have you take the maximum amount contracted for?

Mr. TAYLOR. The first year in my experience it is true this year.

Mr. SENSENBRENNER. In many cases, endeavored to and did induce you to take more than the maximum amount contracted for?

Mr. TAYLOR. Yes, sir.

Mr. SENSENBRENNER. And that is largely responsible for the surplus of wood in the yards?

Mr. TAYLOR. Yes, sir.

Mr. SENSENBRENNER. And that is due to three causes, one of which, is it not true, was that there was practically no demand for other forest products at prices at which they were selling?

Mr. TAYLOR. Yes, sir.

Mr. SENSENBRENNER. And the contract for pulp wood having been made cheaply before the panic and the prices being as high as the year previous it stimulated the production of pulp wood?

Mr. TAYLOR. Yes, sir.

Mr. SENSENBRENNER. Isn't it also true that another cause for the oversupply was that the railroads had an abundance of idle equipment and were anxious to furnish it for the movement of wood?

Mr. TAYLOR. Yes, sir.

Mr. SENSENBRENNER. The third one Mr. Taylor is probably not familiar with. That is the shutting down of mills for want of business, reducing the consumption very materially.

Mr. WHITING. A lack of water.

The CHAIRMAN. With reference to your own company, is the stock of that company owned by the mills that patronize you?

Mr. TAYLOR. No, sir.

The CHAIRMAN. How is your company organized?

Mr. TAYLOR. It is incorporated under the laws of the State of Wisconsin. The stock is owned by individual members of the mill corporations.

The CHAIRMAN. It is a company organized purely for convenience?

Mr. TAYLOR. Yes, sir.

Mr. RYAN. By mill men?

Mr. TAYLOR. Yes, sir.

The CHAIRMAN. What profit does it make?

Mr. TAYLOR. The primary object of our organization was the disposition of the mills, or at least the employees of the mills, to give the shipper a little bit the worst of inspection. We stand between the shipper and the mill man. Our inspection is final and absolute between the mill and the shipper. We scale all our stuff ourselves and there is no going behind the report of our company on grade and quantity and that sort of thing.

The CHAIRMAN. What profit does your company make?

Mr. TAYLOR. None at all, except the 7 per cent interest. We pay our stockholders 7 per cent interest on the money they have invested in the stock.

The CHAIRMAN. And the price of wood to the mill is based upon the purchasing price?

Mr. TAYLOR. Yes, sir.

The CHAIRMAN. And the necessary amount to pay the 7 per cent dividend?

Mr. TAYLOR. Yes, sir.

The CHAIRMAN. Has there been any increase or diminution in the freight rate?

Mr. TAYLOR. A slight decrease, becoming effective late last fall.

The CHAIRMAN. Is that in Wisconsin and Minnesota both?

Mr. TAYLOR. Wisconsin only.

The CHAIRMAN. That was a decrease ordered by the Wisconsin commission?

Mr. TAYLOR. Yes, sir.

The CHAIRMAN. Do you cut any wood?

Mr. TAYLOR. Not as a company; no, sir.

The CHAIRMAN. What do you mean, "not as a company?"

Mr. TAYLOR. We own no stumpage.

The CHAIRMAN. You buy no stumpage?

Mr. TAYLOR. No, sir; we buy no stumpage.

The CHAIRMAN. You buy only from other people who cut wood?

Mr. TAYLOR. Yes, sir.

The CHAIRMAN. Or who have bought it themselves?

Mr. TAYLOR. Yes, sir.

The CHAIRMAN. You do not keep posted as to the wages of men in the forest, then?

Mr. TAYLOR. Yes, sir; that is part of my business.

The CHAIRMAN. Why should you have to do that?

Mr. TAYLOR. It has a great deal to do with the cost of production of the material that we use.

The CHAIRMAN. What has been the tendency during the past winter?

Mr. TAYLOR. I think there has been a little difference, a little less wages paid in the woods than up to this last year, perhaps. The wages have been very high for the last four or five years and possibly a little slump, not as large a slump of wages in the woods as you perhaps have been told by others.

Mr. RYAN. What do you mean by very high? What was the wage?

Mr. TAYLOR. As high as \$42, \$44, or \$45.

Mr. RYAN. Per month, per man?

Mr. TAYLOR. Per month and board. The wages have not only been very high for the last few years in the woods, but the class of labor they were compelled to get was very unsatisfactory.

Mr. RYAN. What would these men have to do; any particular task to perform, any quantity of wood to get out?

Mr. TAYLOR. No; they are hired by the month.

Mr. RYAN. Just go where they are ordered?

Mr. TAYLOR. In most cases hired by month.

Mr. RYAN. What hours do they work a day?

Mr. TAYLOR. From daylight to dark.

The CHAIRMAN. That is, in the winter time?

Mr. TAYLOR. Yes, sir.

The CHAIRMAN. Not very long hours.

Mr. TAYLOR. No; but it is long enough. They start in the woods with a lantern in the morning to see to get to the work and go back with a lantern at night.

Mr. RYAN. They work during all the daylight?

Mr. TAYLOR. All the daylight hours there are. A successful camp foreman expects to have his men on the work in the morning as early as it is light enough to see to work and keep them there as long as they can see at night.

The CHAIRMAN. The wood is cut in the winter, isn't it?

Mr. TAYLOR. They will commence cutting now soon after the first of October on small stuff like cedar posts and ties and that sort of stuff. All that they can get cut of that before the snow gets deep is to their advantage, get it cut and together.

The CHAIRMAN. Of course, the farmer can commence to cut as soon as his crops are out of the way.

Mr. TAYLOR. Yes.

The CHAIRMAN. They can cut some at the present time?

Mr. TAYLOR. I presume that they are cutting, except that they might fear danger of loss by fire through the extreme drought we are having. The farmer does not cut very much stuff except to the extent of clearing off a portion of his farm. We don't get very much stuff from the farmers.

The CHAIRMAN. Were these forests up here opened up entirely by the lumbermen?

Mr. TAYLOR. Originally, yes, but the farmers have opened up in developing farms. The lumber concerns have let go of their lands in blocks of four or five forties or something of that sort to the farmers. The German farmers have cleaned up this country.

The CHAIRMAN. Attention was called by Mr. Smith to what he said was practically virgin forest upon a new railroad line here, six townships in length. Who owns that land?

Mr. TAYLOR. Charley Smith owns a lot of it.

The CHAIRMAN. It is not owned by the General Government?

Mr. TAYLOR. No, they have owned it for several years, some of it.

The CHAIRMAN. How did they get that land from the Government?

Mr. TAYLOR. I think a great deal of that land was sold by the State at \$1.25 an acre.

The CHAIRMAN. Where did the State get possession of it?

Mr. TAYLOR. I can not tell you. A great deal of land was sold in this State by the State of Wisconsin at \$1.25 an acre, and they used to go to Madison to buy it.

The CHAIRMAN. The State might get school land and might get swamp land, but I don't quite understand how the State could get any other lands.

Mr. TAYLOR. I may have made a statement there that I could not verify. I don't know how those lands were acquired.

The CHAIRMAN. But the forest is practically a virgin forest without anybody living in it and somebody else owns it than the Government?

Mr. TAYLOR. Yes, there is a great deal of that virgin forest, too, up in that country.

Adjourned.

The committee next visited the mill of the Combined Locks Paper Company at Combined Locks, Wis., reaching there at 3 p. m. of September 17, 1908.

STATEMENT OF WILLIAM VAN NORTWICK, AT COMBINED LOCKS.

Examined by the chairman.

The CHAIRMAN. Give your name.

Mr. VAN NORTWICK. William Van Nortwick.

The CHAIRMAN. You are the manager of this mill?

Mr. VAN NORTWICK. Yes, Combined Locks Paper Company.

The CHAIRMAN. What is the capacity of your mill?

Mr. VAN NORTWICK. Do you mean in paper?

The CHAIRMAN. Everything.

Mr. VAN NORTWICK. It is about 70 tons of paper a day.

The CHAIRMAN. Do you make all of your wood pulp and sulphite?

Mr. VAN NORTWICK. We aim to make it; we make all our sulphite.

The CHAIRMAN. What is your capacity on wood pulp, ground pulp?

Mr. VAN NORTWICK. We make about 50 to 55 tons, on an average.

The CHAIRMAN. What is your capacity on sulphite?

Mr. VAN NORTWICK. We are making about 18 to 20 tons.

The CHAIRMAN. You are shut down very largely as to ground pulp now?

Mr. VAN NORTWICK. At the present time we are.

The CHAIRMAN. On account of low water?

Mr. VAN NORTWICK. On account of low water.

The CHAIRMAN. You have four paper machines?

Mr. VAN NORTWICK. Four paper machines.

The CHAIRMAN. Two operated by steam power?

Mr. VAN NORTWICK. Two operated by steam power and two by water power.

The CHAIRMAN. What are the sizes of those and their rate?

Mr. VAN NORTWICK. Two 106-inch and one 120-inch and one 96-inch.

The CHAIRMAN. The two 106-inch are the ones operated by water power?

Mr. VAN NORTWICK. Yes.

The CHAIRMAN. They are shut down at present?

Mr. VAN NORTWICK. Yes.

The CHAIRMAN. Do you have any trouble in the machines operated by water power as to their steadiness?

Mr. VAN NORTWICK. We have no trouble with them.

The CHAIRMAN. They make paper very successfully?

Mr. VAN NORTWICK. They do.

The CHAIRMAN. You have, I notice, a large supply of pulp wood.

Mr. VAN NORTWICK. We have; yes, sir.

The CHAIRMAN. Is that an ordinary or an unusual supply?

Mr. VAN NORTWICK. Unusual this year.

The CHAIRMAN. Why?

Mr. VAN NORTWICK. The machines were down this summer a great deal and we put in very large orders.

The CHAIRMAN. What is this wood out in the water here?

Mr. VAN NORTWICK. Mostly spruce wood.

The CHAIRMAN. You use only spruce for ground pulp?

Mr. VAN NORTWICK. Only for ground pulp.

The CHAIRMAN. Do you have more or less hemlock?

Mr. VAN NORTWICK. We have quite a little hemlock. We use it for sulphite almost entirely. We do use some spruce once in a while.

The CHAIRMAN. You use hemlock for sulphite?

Mr. VAN NORTWICK. Yes, sir.

The CHAIRMAN. And spruce for ground wood?

Mr. VAN NORTWICK. Yes, sir.

The CHAIRMAN. How do you get your wood?

Mr. VAN NORTWICK. Mostly by rail. We get some by boat in the summer.

The CHAIRMAN. Who do you get it from?

Mr. VAN NORTWICK. The Pulp Wood Company.

The CHAIRMAN. They buy practically all your wood?

Mr. VAN NORTWICK. Yes.

The CHAIRMAN. You own no forests of your own?

Mr. VAN NORTWICK. We have some up north?

The CHAIRMAN. Do you cut some wood?

Mr. VAN NORTWICK. We haven't any this year, from our woods; no.

The CHAIRMAN. How much do you own?

Mr. VAN NORTWICK. I couldn't tell you. I don't look after that part of it.

The CHAIRMAN. You are not familiar with the forestry element of the business?

Mr. VAN NORTWICK. No; I am not.

The CHAIRMAN. Do I understand the spruce wood that you use comes mainly from Minnesota?

Mr. VAN NORTWICK. As far as I know. I couldn't tell you where it does come from.

The CHAIRMAN. That is not a part of your particular business?

Mr. VAN NORTWICK. No.

The CHAIRMAN. You are supposed to take the wood after it gets here?

Mr. VAN NORTWICK. Yes.

The CHAIRMAN. Mr. Taylor testified this morning that they got their spruce wood from Minnesota and the hemlock wood mainly from Wisconsin.

Mr. VAN NORTWICK. Yes.

Mr. RYAN. It is the company that he is connected with that you buy your wood from?

Mr. VAN NORTWICK. Yes.

The CHAIRMAN. Do you know how much wood on an average you consume in a year?

Mr. VAN NORTWICK. We use, I think, pretty close to 20,000 cords.

The CHAIRMAN. Have you any idea how much you have out here in the river?

Mr. VAN NORTWICK. There is very close to 30,000 cords of spruce.

Mr. RYAN. Does that include what is piled along the shore?

Mr. VAN NORTWICK. Yes; everything in the water and on the banks.

The CHAIRMAN. You have got more than a year's supply according to that, on hand?

Mr. VAN NORTWICK. Yes.

The CHAIRMAN. Does it deteriorate any?

Mr. VAN NORTWICK. It may lose a little in the water, get water-logged and sink.

The CHAIRMAN. You are pretty near down in the river to where you can take that out?

Mr. VAN NORTWICK. We can take it out now at present.

The CHAIRMAN. What water power have you here?

Mr. VAN NORTWICK. We have around 6,000 horsepower.

The CHAIRMAN. You have a fall of 20 feet?

Mr. VAN NORTWICK. About 20 feet.

The CHAIRMAN. At the present time you are apparently using all the water in the river.

Mr. VAN NORTWICK. All we can get, yes.

The CHAIRMAN. How many grinding machines have you operating, do you remember?

Mr. VAN NORTWICK. No, I do not; I think four or five.

The CHAIRMAN. How many grinding machines have you?

Mr. VAN NORTWICK. Nineteen.

The CHAIRMAN. Each with three pockets?

Mr. VAN NORTWICK. Each with three pockets.

The CHAIRMAN. All the power that you can get now is to run four or five?

Mr. VAN NORTWICK. And they are not running full capacity. They are only running a pocket and a half, I believe he said, down there.

Mr. RYAN. How long have your two large machines been laid up?

Mr. VAN NORTWICK. One of them has been off and on since before Christmas.

Mr. RYAN. It isn't altogether due to the lack of water, is it?

Mr. VAN NORTWICK. Not altogether, no.

Mr. RYAN. How long have they been down for the lack of water?

Mr. VAN NORTWICK. We shut one of them down about a week or ten days ago. The other one started up yesterday morning and went down last night, didn't have enough water to run it. I thought we possibly could get along, but we could not.

The CHAIRMAN. How long have you been short of water?

Mr. VAN NORTWICK. We haven't had our regular water for—I don't know—I can't remember when we were running full.

Mr. RYAN. When your machine was down during the last winter, what did you attribute that to?

Mr. VAN NORTWICK. We didn't have orders—

Mr. RYAN. You couldn't get orders?

Mr. VAN NORTWICK. No, sir.

Mr. RYAN. Why?

Mr. VAN NORTWICK. I don't know why. We couldn't get them. That is all.

Mr. RYAN. Was it due to the market price—that you would not sell paper for the price offered?

Mr. VAN NORTWICK. I do not know as we were offered any business.

Mr. RYAN. Do you look for business yourself or does it come to you?

Mr. VAN NORTWICK. No, we do not go out looking for it?

Mr. RYAN. You would rather close up than look for it?

Mr. VAN NORTWICK. Well, we don't go out for business at all.

Mr. RYAN. It generally does come, though?

Mr. VAN NORTWICK. Yes, it does.

The CHAIRMAN. You furnish practically only news print paper?

Mr. VAN NORTWICK. We did make a little bit of what they call book paper.

The CHAIRMAN. Not any great quantity?

Mr. VAN NORTWICK. No.

The CHAIRMAN. Your purpose is to manufacture paper for newspapers?

Mr. VAN NORTWICK. Yes, sir.

The CHAIRMAN. Do you carry that in stock?

Mr. VAN NORTWICK. On contracts we carry some.

The CHAIRMAN. Do you make up any miscellaneous stock?

Mr. VAN NORTWICK. No, unless it would be in counter roll, something in odd sizes, something of that kind.

The CHAIRMAN. You aim to sell your paper before you make it?

Mr. VAN NORTWICK. Yes, sir.

The CHAIRMAN. What is the effect, then, when you have to shut down two of your machines? You have your paper contracted up to say 75 or 80 per cent of your capacity, and I suppose it is safe to make a contract up to that extent, isn't it?

Mr. VAN NORTWICK. Yes.

The CHAIRMAN. But what do you do when two machines are shut down for months?

Mr. VAN NORTWICK. If we can not furnish it, it is up to them.

The CHAIRMAN. Is it up to the publisher?

Mr. VAN NORTWICK. Yes, sir. I think it would be.

The CHAIRMAN. While you agree to furnish the paper, does not the publisher look to you to get the paper?

Mr. VAN NORTWICK. I don't know. We never had a test case of that kind. I don't know what they would do. It is something we can not help, this low water. If we could help it, it would be different.

The CHAIRMAN. I do not want to get into the legal phase of it. I am trying to get at the practical question now.

Mr. VAN NORTWICK. I could not tell you how it would be. Of course, we will try to supply it if we can.

The CHAIRMAN. Take, for instance, at present. You paper men tell us that it is not safe for them to make paper up in advance to any great extent and you are not prepared to store it to a large extent.

Mr. VAN NORTWICK. No.

The CHAIRMAN. You aim to contract your paper and there comes a time, like now, when you can manufacture only half of your capacity or the neighborhood of half your capacity; aren't you likely to run out of a supply of paper?

Mr. VAN NORTWICK. We certainly are; yes, sir.

The CHAIRMAN. Have you contracts enough now to run, say, three machines?

Mr. VAN NORTWICK. I think not.

The CHAIRMAN. Yet you would not take a contract now if it were offered owing to the low water?

Mr. VAN NORTWICK. It would not be very safe; no. We would not want to take on any business of any kind until we take care of the contracts we have at the present time.

Mr. RYAN. Do you have trouble in the winter time in having water enough to operate?

Mr. VAN NORTWICK. Not to speak of.

Mr. RYAN. Sufficient water in the winter?

Mr. VAN NORTWICK. Generally have enough water. Once in a while we have low water, but very seldom.

The CHAIRMAN. Are you familiar with the sales end of your business?

Mr. VAN NORTWICK. I do not look after the sales end; no.

The CHAIRMAN. You are the operating end of the business?

Mr. VAN NORTWICK. Yes.

The CHAIRMAN. Have you any views on the subject of the future supply of pulp wood.

Mr. VAN NORTWICK. No; I have not.

The CHAIRMAN. You haven't studied that subject?

Mr. VAN NORTWICK. No; I have not.

The CHAIRMAN. You give no attention to the question of the supply of pour pulp wood?

Mr. VAN NORTWICK. No.

The CHAIRMAN. That is a matter that is attended to by the pulp-wood company?

Mr. VAN NORTWICK. Yes.

Mr. RYAN. Your mill is not what they call a union mill, is it, so far as labor is concerned?

Mr. VAN NORTWICK. No.

Mr. RYAN. What hours do your employees work?

Mr. VAN NORTWICK. In the machine room?

Mr. RYAN. Yes.

Mr. VAN NORTWICK. From 7 in the morning until 5 in the afternoon. Then the other crew comes on and works until 7 the next morning. Ten and fourteen.

The CHAIRMAN. That is unusual, isn't it?

Mr. VAN NORTWICK. The men wanted it that way.

The CHAIRMAN. Instead of eleven and thirteen?

Mr. VAN NORTWICK. Yes; they would rather go home a little earlier and the other fellows said they would rather come in a little earlier.

Mr. RYAN. The men in the other parts, what hours do they work?

Mr. VAN NORTWICK. The beater rooms the same.

The CHAIRMAN. These men who work fourteen hours a day, how do they eat?

Mr. VAN NORTWICK. They carry their lunches. They have plenty of time. A great deal of the time the machine will not bother them at all.

The CHAIRMAN. Do you think that a man that works fourteen hours, from your experience, does good work in the fourteenth hour?

Mr. VAN NORTWICK. On a paper machine it all depends. If he doesn't have very hard luck he can. It is only sitting up.

Mr. RYAN. You speak about the men in the beater room. In the other portion of the mill, what hours?

Mr. VAN NORTWICK. We do not run nights. The grinders run night and day.

Mr. RYAN. What part does not run nights?

Mr. VAN NORTWICK. Principally all of them run but the furnishing room.

Mr. RYAN. What wage do these men on machines receive?

Mr. VAN NORTWICK. Wages paid machine tenders on two machines, 27½ cents per hour; machine tenders, 29 cents per hour; back tenders, 16 cents per hour; back tenders, 18 cents per hour; third hands, 12½ cents per hour; third hands, 13 cents per hour; fourth hands, 11½ cents per hour; fourth hands, 12½ cents per hour; oilers, 10 cents per hour; oilers, 9 cents per hour; spare hand, or extra man, \$2 per day.

Mr. RYAN. What are fourth men—the men rolling up the paper at the end of the machine?

Mr. VAN NORTWICK. Yes; they help on the winder.

Mr. RYAN. Including the men making up the rolls at the end of the machine, you have 5 men on each machine?

Mr. VAN NORTWICK. Six men, a spare man.

Mr. RYAN. I notice that the men are usually young men from the ages of 18 up to 25 or 30.

Mr. VAN NORTWICK. Yes.

Mr. RYAN. What do you attribute that to?

Mr. VAN NORTWICK. I couldn't say. I never noticed it until you spoke to me about it. I noticed they were young, but I never thought about it.

The CHAIRMAN. You are a young man yourself, aren't you?

Mr. VAN NORTWICK. Yes.

Mr. RYAN. How long has the mill been running?

Mr. VAN NORTWICK. Eighteen to twenty years.

Mr. RYAN. The men that were running your machines ten years ago are not there now?

Mr. VAN NORTWICK. One of them is.

Mr. RYAN. What I can not understand is the disposition it seems to me of the mills to have young men. What do they do with the older fellows?

Mr. VAN NORTWICK. I think it just happens so. We never have laid any of them off on account of age. As I told you, we have one machine tender there now that is over 40 years old. He worked for my father over thirty years, I think.

Mr. RYAN. They all look healthy and strong. I was wondering why they get out of there.

Mr. VAN NORTWICK. I don't know. I suppose they get a chance to run a mill or something of that kind. I know one of our machine tenders who has been working with us a long time has gone and taken a mill.

The CHAIRMAN. How long have you been manager of this mill?

Mr. VAN NORTWICK. About a year and a half.

The CHAIRMAN. Were you in the mill before that?

Mr. VAN NORTWICK. I was running a mill before that, superintending.

The CHAIRMAN. Where?

Mr. VAN NORTWICK. Here.

Mr. RYAN. There is no disposition to restrict the output of print paper, is there?

Mr. VAN NORTWICK. Not that I know of; no.

Mr. RYAN. It is due entirely to a lack of orders and lack of power that you do not run?

Mr. VAN NORTWICK. And water; yes.

Mr. RYAN. I notice that the wood lying along the shore—the spruce—was all very small. Why is it that they get it that small?

Mr. VAN NORTWICK. I couldn't tell you unless they can not get anything else and have to take everything they can get to fill their orders.

The CHAIRMAN. A large part is 4 inch?

Mr. VAN NORTWICK. Yes.

Mr. RYAN. Is that unusual in the wood that you are getting now?

Mr. VAN NORTWICK. No; we always get it about this way.

Mr. RYAN. Every since you have been here?

Mr. VAN NORTWICK. Yes.

Mr. RYAN. It keeps coming small?

Mr. VAN NORTWICK. I don't know, years ago, whether it did or not. I didn't pay so much attention to it then. I know the wood the last few years has been very small.

The CHAIRMAN. When did you get most of your wood in?

Mr. VAN NORTWICK. It is coming in right along now. It has been coming in within the last four or five months.

Mr. RYAN. You have got more ordered?

Mr. VAN NORTWICK. We will have about 1,000 cords more coming.

The CHAIRMAN. I understood Mr. Taylor to say that most of the wood ordered last year was delivered pretty early. Maybe I misunderstood him. On last year's contracts is it being delivered?

Mr. VAN NORTWICK. We have been getting it right along all the time; yes. We have been, up to the present time, handling 14 or 15 cars a day. To-day we are only handling about 6.

The CHAIRMAN. Do you remember what this wood cost you per cord?

Mr. VAN NORTWICK. I think that spruce costs \$11.25 here.

The CHAIRMAN. Delivered here?

Mr. VAN NORTWICK. Yes.

The CHAIRMAN. How do you figure the cost, at \$11.25 for unloading?

Mr. VAN NORTWICH. We buy the wood at \$11 and it costs us about a quarter to unload it.

The CHAIRMAN. You pay \$11 for the wood delivered here?

Mr. VAN NORTWICH. Yes, sir.

The CHAIRMAN. It costs about \$7.50 delivered at Duluth f. o. b. Mr. Taylor says.

Mr. RYAN. \$7.25.

The CHAIRMAN. What do you pay for the hemlock?

Mr. VAN NORTWICH. \$7 delivered here and we unload it.

The CHAIRMAN. A very large share of the cost of that spruce is freight?

Mr. VAN NORTWICH. Yes.

Mr. RYAN. Hemlock does not have to come so great a distance, does it?

Mr. VAN NORTWICH. No.

Mr. RYAN. You consume much more?

Mr. VAN NORTWICH. Yes.

The CHAIRMAN. Would large sized spruce 6, 8, or 10 inches in diameter with the ordinary amount running down to 4 inches be more profitable to grind than this small spruce?

Mr. VAN NORTWICH. I should think it would. I don't know from actual experience. I should think it would be as in barking it you would certainly waste so much.

Mr. RYAN. It takes as long to bark a small log as a large one?

Mr. VAN NORTWICH. Just about.

The CHAIRMAN. All of your wood is barked or rossed?

Mr. VAN NORTWICH. Yes.

The CHAIRMAN. Before it goes into the grinder?

Mr. VAN NORTWICH. Yes.

The CHAIRMAN. Whether it is sulphite or ground wood?

Mr. VAN NORTWICH. Yes.

The CHAIRMAN. I saw no peeled wood that came in.

Mr. VAN NORTWICH. No, we have none. It is all barked here.

The CHAIRMAN. Your hemlock, is that peeled?

Mr. VAN NORTWICH. We get a little peeled.

The CHAIRMAN. For the hemlock bark for tanning purposes?

Mr. VAN NORTWICH. Some of it comes barked, and some with the bark on. I don't really know.

Mr. RYAN. You use the bark for fuel?

Mr. VAN NORTWICH. Yes, we get rid of it the easiest way.

STATEMENT OF PETER McNAUGHTON, TAKEN AT LITTLE CHUTE, WIS.

The CHAIRMAN. Give your name in full.

Mr. McNAUGHTON. Peter McNaughton.

The CHAIRMAN. You are the manager of this mill?

Mr. McNAUGHTON. Yes, sir.

The CHAIRMAN. Which is called the Little Chute?

Mr. McNAUGHTON. The Little Chute Pulp Company.

The CHAIRMAN. What do you manufacture?

Mr. McNAUGHTON. Ground wood pulp.

The CHAIRMAN. Nothing else?

Mr. McNAUGHTON. No.

The CHAIRMAN. You make no sulphite?

Mr. McNAUGHTON. No, sir.

The CHAIRMAN. No paper of any kind?

Mr. McNAUGHTON. No, sir.

The CHAIRMAN. Of course, you sell your ground wood pulp to other mills?

Mr. McNAUGHTON. Yes, sir.

The CHAIRMAN. What is your capacity?

Mr. McNAUGHTON. Fifty tons.

The CHAIRMAN. How much are you making now?

Mr. McNAUGHTON. About 8 tons.

The CHAIRMAN. Are you making all that you can make with the water power you have?

Mr. McNAUGHTON. Yes; from 8 to 10 tons.

The CHAIRMAN. Do you have any steam power at all?

Mr. McNAUGHTON. No, sir.

The CHAIRMAN. You run exclusively with the water power?

Mr. McNAUGHTON. Yes, sir.

The CHAIRMAN. How much stock have you on hand?

Mr. McNAUGHTON. Of ground wood we have at the present time about 40,000 bundles.

The CHAIRMAN. How many bundles to a ton?

Mr. McNAUGHTON. It tests about 42.4 pounds. It varies.

The CHAIRMAN. Do you sell your pulp on contract?

Mr. McNAUGHTON. Some.

The CHAIRMAN. Some you sell on the market?

Mr. McNAUGHTON. Yes, sir.

The CHAIRMAN. You have got an emergency just now where there is a demand for ground pulp?

Mr. McNAUGHTON. Yes, sir.

The CHAIRMAN. Is that to your benefit or otherwise?

Mr. McNAUGHTON. To our benefit.

The CHAIRMAN. You only make a small amount now?

Mr. McNAUGHTON. That is all.

The CHAIRMAN. You make a profit on what you have on hand where you did not have it contracted for?

Mr. McNAUGHTON. We make a profit in this way, that we dispose of it, while if there was a large amount we might not dispose of it so readily.

The CHAIRMAN. How much pulp wood do you have on hand now?

Mr. McNAUGHTON. About 12,000 cords.

The CHAIRMAN. How long will that last you?

Mr. McNAUGHTON. Do you mean in the full water?

The CHAIRMAN. Yes; how long would it last you at full capacity?

Mr. McNAUGHTON. About nine to ten months.

The CHAIRMAN. Do you remember how much ground pulp you made last year?

Mr. McNAUGHTON. I don't remember. I can give you the amount by looking at the books.

The CHAIRMAN. Where do you get your pulp wood from?

Mr. McNAUGHTON. We get it through the Pulp Wood Company.

The CHAIRMAN. That is Mr. Taylor's company?

Mr. McNAUGHTON. Yes, sir.

The CHAIRMAN. Do you use anything but spruce wood?

Mr. McNAUGHTON. Very little poplar.

The CHAIRMAN. Do you aim to buy any poplar?

Mr. McNAUGHTON. We haven't bought any for over a year. A year ago last winter.

The CHAIRMAN. Does poplar make good ground wood?

Mr. McNAUGHTON. No; not so good as spruce. We use very little of it.

The CHAIRMAN. Of course, you can not make ground wood from hemlock?

Mr. McNAUGHTON. No.

The CHAIRMAN. You can not make ground wood from hard woods?

Mr. McNAUGHTON. No.

The CHAIRMAN. Do you know where it comes from?

Mr. McNAUGHTON. I do not.

The CHAIRMAN. Do you know where it is billed from?

Mr. McNAUGHTON. No; I do not.

The CHAIRMAN. We understand from Mr. Taylor this wood comes from Minnesota?

Mr. McNAUGHTON. I understand so, but I don't know. It is delivered to us freight paid, so we have no freight bills to know the shipping point. Some of it comes by boat from Green Bay or Longtail Point.

The CHAIRMAN. Do you know what you are paying for wood now?

Mr. McNAUGHTON. Yes, sir.

The CHAIRMAN. How much?

Mr. McNAUGHTON. \$11 a cord.

The CHAIRMAN. That is f. o. b. here?

Mr. McNAUGHTON. On the cars.

The CHAIRMAN. I notice a great deal of it seems to be very small wood.

Mr. McNAUGHTON. It is small, average.

The CHAIRMAN. Is that as good as larger wood?

Mr. McNAUGHTON. No.

The CHAIRMAN. There is more waste in this?

Mr. McNAUGHTON. Yes, sir.

The CHAIRMAN. By the time you ross it and grind it?

Mr. McNAUGHTON. Yes, sir.

The CHAIRMAN. The fiber is practically just the same, I suppose?

Mr. McNAUGHTON. Yes.

The CHAIRMAN. Have you ever given study to the subject of the future supply of pulp wood?

Mr. McNAUGHTON. Not a great deal.

The CHAIRMAN. You think that the rest of us will take care of that, do you?

Mr. McNAUGHTON. Yes.

The CHAIRMAN. That is what we are trying to find out about now.

Mr. McNAUGHTON. I understand so.

The CHAIRMAN. How long have you been in the business?

Mr. McNAUGHTON. Here, fourteen years, coming spring.

The CHAIRMAN. The pulp wood is about the same class during all that time, or is it deteriorating?

Mr. McNAUGHTON. It is about as good now as it has been.

The CHAIRMAN. This pulp wood, I rather gather from what Mr. Taylor has said, is cut out of the forest when they are cutting cedar posts, and of course not very large stuff, naturally?

Mr. McNAUGHTON. No.

The CHAIRMAN. Have you any opinion as to whether it would be an aid to you or not if you could get spruce wood from the north shore of Lake Superior?

Mr. McNAUGHTON. I think it would.

The CHAIRMAN. Do you think if you could get wood from over there on even terms that you could compete with wood pulp manufacturing over there?

Mr. McNAUGHTON. Let me understand you.

The CHAIRMAN. If you can get a supply of wood from over there without any restrictions by the Ontario government, will you need a tariff on wood pulp then?

Mr. McNAUGHTON. I think so; yes, sir.

The CHAIRMAN. Why?

Mr. McNAUGHTON. Labor is higher and water power is higher.

The CHAIRMAN. Is labor any higher here than it is over there?

Mr. McNAUGHTON. I think it is; common labor considerable.

Mr. RYAN. Do you work the two-tour system here?

Mr. McNAUGHTON. Yes, sir.

Mr. RYAN. What hours?

Mr. McNAUGHTON. Eleven and thirteen.

Mr. RYAN. What do you pay your men per hour?

Mr. McNAUGHTON. We pay them \$1.65 to \$2.25.

Mr. RYAN. A day?

Mr. McNAUGHTON. Yes, sir.

Mr. RYAN. Is that the general wage right through?

Mr. McNAUGHTON. In this mill?

Mr. RYAN. Yes.

Mr. McNAUGHTON. Yes, sir.

Mr. RYAN. Is that the common labor, as you call it?

Mr. McNAUGHTON. The very commonest labor \$1.65.

Mr. RYAN. For how many hours?

Mr. McNAUGHTON. For ten hours.

Mr. RYAN. That is 16½ cents an hour?

Mr. McNAUGHTON. Yes, sir.

Mr. RYAN. Do they work eleven hours?

Mr. McNAUGHTON. No, not day laborer. Tour workers work eleven hours on machines.

Mr. RYAN. What do the men on machines get?

Mr. McNAUGHTON. \$1.65 to \$2.25.

Mr. RYAN. That depends upon the number of hours they work?

Mr. McNAUGHTON. No, it depends upon the place they work in.

Mr. RYAN. What is the highest wage paid to your skilled men per hour?

Mr. McNAUGHTON. We pay millwrights—

Mr. RYAN. I mean your skilled men on the machines.

The CHAIRMAN. You mean on the grinding machines?

Mr. RYAN. Yes.

Mr. McNAUGHTON. \$2.15.

Mr. RYAN. For how many hours?

Mr. McNAUGHTON. For tour workers eleven and thirteen.

Mr. RYAN. That is the average wage, is it?

Mr. McNAUGHTON. No. \$1.65 for grinder men.

Mr. RYAN. You say \$2.15 for the tour workers. Does the man get \$2.15 the week he works fourteen hours?

Mr. McNAUGHTON. Yes; he works one week eleven hours and thirteen the next.

Mr. RYAN. How much does he get the week he works thirteen hours?

Mr. McNAUGHTON. The same as the other.

Mr. RYAN. You don't change wage at all?

Mr. McNAUGHTON. No; he works one week the short tour and the next week the long tour, vice versa.

Mr. RYAN. He gets \$2.15 a day.

Mr. McNAUGHTON. That is the highest priced. The common laborers on the grinders get \$1.65.

The CHAIRMAN. Are your wages based on a weekly wage?

Mr. McNAUGHTON. No, sir.

The CHAIRMAN. I do not mean weekly pay.

Mr. McNAUGHTON. Daily wage.

Mr. RYAN. \$1.65 would be for an average of twelve hours.

Mr. McNAUGHTON. They have their eating time, you know.

The CHAIRMAN. Do they shut down?

Mr. McNAUGHTON. No.

Mr. RYAN. It is less than 14 cents an hour?

Mr. McNAUGHTON. They relieve each other.

The CHAIRMAN. Do you have any trouble in disposing of your products?

Mr. McNAUGHTON. Some season of the year we do.

The CHAIRMAN. Are there very many mills that simply make the ground wood pulp?

Mr. McNAUGHTON. There are a considerable number; yes.

Mr. RYAN. Your wage, as I understand it, would be for the laborers 13½ cents per hour and for the more skilled men on the machines nearly 18 cents an hour.

Mr. McNAUGHTON. I did not reduce that to hours; probably you are right.

The CHAIRMAN. Now we will go through the mill, if you please.

Mr. McNAUGHTON. One tour works eleven and the other thirteen.

Mr. RYAN. That is to say, an average of twelve?

Mr. McNAUGHTON. That is only the grinder help. In the wood room they only work ten hours.

Mr. RYAN. You say that labor is higher here than in Canada. What do they pay their men in Canada?

Mr. McNAUGHTON. I don't know; I understand considerably less.

Mr. RYAN. Our testimony is to the contrary on that particular phase of it.

The committee then examined the mill of the Little Chute Pulp Company.

STATEMENT OF WILLIAM A. FANNON, MANAGER OF THE INTERLAKE PULP AND PAPER COMPANY, AT APPLETON, WIS., TAKEN AT THE MILL.

The CHAIRMAN. What is your name?

Mr. FANNON. William A. Fannon.

The CHAIRMAN. You are the general manager?

Mr. FANNON. Manager; there is no general about it.

The CHAIRMAN. Of the Interlake?

Mr. FANNON. Interlake Pulp and Paper Company.

The CHAIRMAN. What do you make mostly?

Mr. FANNON. Unbleached sulphite.

The CHAIRMAN. What process do you use?

Mr. FANNON. The Miesterlich process.

The CHAIRMAN. Will you tell us, as far as you care to make public, what the Miesterlich process is and what it does?

Mr. FANNON. The advantages are that it is a stronger fiber. It is a process that does not destroy the fiber in the making of it. It is not subjected to such harsh treatment as the common sulphite. This is a slow process and slow cooking, and they cook with weak acid.

The CHAIRMAN. Do you call what you run through the digester the same as the others do?

Mr. FANNON. You mean, is the fiber the same when it comes out?

The CHAIRMAN. No. Do you run it through what you call a digester?

Mr. FANNON. Yes; but not the same kind of a digester.

The CHAIRMAN. How long does it take to put the ordinary sulphite through the digester?

Mr. FANNON. I understand that some cook as low as six to eight hours.

The CHAIRMAN. How long does it take to cook by yours?

Mr. FANNON. We take about thirty hours for it.

The CHAIRMAN. Your sulphite, while it takes longer to make it, is stronger and requires less for paper; is that it?

Mr. FANNON. Yes; it takes less.

The CHAIRMAN. Requires a smaller proportion of sulphite?

Mr. FANNON. Yes, sir.

The CHAIRMAN. Do you have ready sale for it?

Mr. FANNON. Sometimes.

The CHAIRMAN. Is there anybody else who makes it?

Mr. FANNON. Yes; there are other mills making it.

The CHAIRMAN. Any other mill in Wisconsin?

Mr. FANNON. There is no other mill in Wisconsin.

The CHAIRMAN. What is your consumption of wood and what is your production of sulphite as to capacity?

Mr. FANNON. We are making about 50 tons a day of sulphite. We are not making that now. We are practically shut down.

The CHAIRMAN. Your capacity is about 50 tons of sulphite a day?

Mr. FANNON. Yes, sir.

The CHAIRMAN. That is a pretty good capacity, isn't it?

Mr. FANNON. Yes; 50 to 55 tons.

The CHAIRMAN. What do you depend on water power for; the chipping of the wood?

Mr. FANNON. Depend on it entirely for power purposes. We have no steam.

The CHAIRMAN. Of course, your water is very low?

Mr. FANNON. The water is very low now. We are practically shut down.

Mr. RYAN. Do you get a greater amount of product out of a cord of wood than is obtained by the other process?

Mr. FANNON. I don't know. I think we do, but I don't know. It is one of a kind of trade secrets. Some fellows say they can do this and that with a cord of wood, and they claim so much and others claim more.

The CHAIRMAN. What do you use—hemlock?

Mr. FANNON. We use hemlock and spruce.

The CHAIRMAN. Where do you buy your wood?

Mr. FANNON. We buy some of it from the Pulp Wood Company, of Appleton.

The CHAIRMAN. That is the Taylor Company?

Mr. FANNON. Yes.

The CHAIRMAN. Do you own any timber?

Mr. FANNON. Yes, sir.

The CHAIRMAN. Do you cut any pulp wood yourself?

Mr. FANNON. Yes, sir.

The CHAIRMAN. In Wisconsin?

Mr. FANNON. Yes, sir.

The CHAIRMAN. Do you have any outside of Wisconsin?

Mr. FANNON. No.

The CHAIRMAN. Have you any views as to the future supply of pulp wood; where you are going to get your pulp wood in the future?

Mr. FANNON. I think, the way they are cutting, it won't take many years before—no; I won't say that. It seems to me that we ought to have some means of getting wood from Canada, from Ontario.

The CHAIRMAN. If you could get spruce wood from Canada, without restriction, could you afford to manufacture sulphite without a tariff duty on it?

Mr. FANNON. That is to say, if we could get the wood in free from Ontario, then we would not care whether there was a duty on the pulp wood or not?

The CHAIRMAN. That is what I am asking.

Mr. FANNON. I would think we could.

Mr. RYAN. Wood is free now, isn't it?

Mr. FANNON. Not from Ontario.

The CHAIRMAN. Can not ship it from Ontario at all? From the public lands, and there is not much other.

Mr. RYAN. You can ship it from Quebec.

The CHAIRMAN. Yes; but there is an extra charge on it. You make practically then a higher grade of sulphite. I notice here that a number of the mills using sulphite import sulphite, stating that they get a better, at least a whiter, grade. Does your sulphite come in competition with the imported sulphite mainly or with the domestic sulphite?

Mr. FANNON. It comes in competition with both.

The CHAIRMAN. If they can bring sulphite in here now from Scandinavia and pay the present duty on it, would it make a difference to you if that duty were removed?

Mr. FANNON. I think it would.

The CHAIRMAN. Do you think that would be fully compensated if you could get spruce wood from Ontario?

Mr. FANNON. I think so.

The CHAIRMAN. Do you use much spruce wood in your sulphite, or is that a trade secret?

Mr. FANNON. No; that is not a trade secret. About half our consumption is spruce.

The CHAIRMAN. Do you make an effort to mix it or not?

Mr. FANNON. No; we do not mix it?

The CHAIRMAN. Keep it separate?

Mr. FANNON. We keep it separate; yes.

The CHAIRMAN. Spruce, sulphite, and hemlock?

Mr. FANNON. Yes; each has its grade.

The CHAIRMAN. And some difference in value?

Mr. FANNON. Some difference in value; yes, sir.

Mr. RYAN. Do you work the two-tour system here?

Mr. FANNON. Yes, sir; two-tour system.

Mr. RYAN. That is, fourteen and eleven hours?

Mr. FANNON. Eleven and thirteen; yes, sir. Part of the mill and part of the mill not.

Mr. RYAN. How many men do you employ?

Mr. FANNON. About in the neighborhood of two hundred. It depends largely on how the wood is coming in. Sometimes if the wood is coming in rapidly we have more men. That is about what we employ.

Mr. RYAN. Do you make paper?

Mr. FANNON. None whatever. We do make ground wood pulp.

Mr. RYAN. What wage do you pay your men, naming them by their different positions, per hour?

Mr. FANNON. The figures I would give you of that would hardly be of much service as compared with others, because the conditions are entirely different.

Mr. RYAN. Why?

Mr. FANNON. In the first place, the ordinary digesters are vertical digesters and chips go down in there by gravity and they are blown out under pressure. Ours are horizontal and we fill the chips in from the top through two manholes in the top and have to shovel the stock out. We also have to shovel the chips in, so that the comparison of that department would be of no service—that is, there is no comparison.

Mr. RYAN. The labor would be no comparison, but you could tell what you are paying the men per day.

Mr. FANNON. Some of the men in there get \$1.50 and some \$2.50 and some \$2.75.

Mr. RYAN. That would mean for an average of twelve hours.

Mr. FANNON. I would correct that. All the way from \$1.50 to \$3.

Mr. RYAN. For an average of a twelve-hour working day.

Mr. FANNON. Yes, sir.

Mr. RYAN. Do you have young fellows working here—boys?

Mr. FANNON. No; we haven't got half a dozen boys in the place. We have got none under 16.

Mr. RYAN. Your help is practically then over 20?

Mr. FANNON. Over 20. Married men predominate.

The CHAIRMAN. How much wood supply have you on hand?

Mr. FANNON. We have about—it depends on how we run. The way we are running now it would last a good deal longer.

The CHAIRMAN. Have you any idea how many cords you have piled up?

Mr. FANNON. Oh, yes, sir. We have in the neighborhood of 20,000 cords piled up.

The CHAIRMAN. If you could run full capacity by the year, how much would you consume?

Mr. FANNON. The 20,000 would last us a little over six months, about seven months.

The CHAIRMAN. You said a while ago your capacity was 50 tons a day. Did you mean 50 tons of sulphite or 50 tons of sulphite and ground wood combined?

Mr. FANNON. I meant sulphite.

The CHAIRMAN. What capacity have you for ground wood in addition to that?

Mr. FANNON. We have about 6 tons. That mill is shut down now entirely.

Mr. RYAN. That is shut down owing to the lack of power?

Mr. FANNON. Lack of water; yes.

Mr. RYAN. You have no reserve steam plant at all?

Mr. FANNON. None whatever.

Mr. RYAN. If the water is down, you are out of business?

Mr. FANNON. Yes.

Mr. RYAN. While you are making your pulp, do you have what they call the sticker men?

The CHAIRMAN. Do you mean where they make the pulp into bundles?

Mr. RYAN. Yes.

Mr. FANNON. No; we do not have those. We make our pulp into sheets as you see there; dry fiber. Instead of making flat bundles, we carry it off onto a dryer similar to a paper machine and make it into rolls.

The CHAIRMAN. We are very much obliged to you. Glad to make your acquaintance.

STATEMENT OF W. B. MURPHY, OF THE RIVERSIDE FIBER AND PAPER COMPANY AT APPLETON, WIS., TAKEN AT THE MILL.

The CHAIRMAN. Give your full name.

Mr. MURPHY. W. B. Murphy.

The CHAIRMAN. What is the name of the mill?

Mr. MURPHY. Riverside Fiber and Paper Company.

The CHAIRMAN. What do you make?

Mr. MURPHY. Sulphite and paper.

The CHAIRMAN. What is your capacity on sulphite?

Mr. MURPHY. Thirty tons a day.

The CHAIRMAN. You make a superior quality of sulphite?

Mr. MURPHY. Yes, sir; we aim to.

The CHAIRMAN. Give us a little statement in reference to it.

Mr. MURPHY. We are aiming in this locality here to compete with the foreign sulphite in the higher grades of writing paper. We are doing it fairly successfully.

The CHAIRMAN. I hold in my hand a sample of bleached sulphite.

Mr. MURPHY. We made that.

The CHAIRMAN. Do you give extra care to the wood that you make it from?

Mr. MURPHY. Yes, sir; of necessity we must.

The CHAIRMAN. What do you do to the knots?

Mr. MURPHY. We have to split our wood open and hack the knots out—that is, in case they require it. We do not take out all the knots.

Mr. RYAN. You aim to take out the bad knots?

Mr. MURPHY. Yes, sir.

The CHAIRMAN. They usually do not do that in this country?

Mr. MURPHY. No; not to the extent that we are compelled to on account of our trade.

The CHAIRMAN. You manage to get then a bleached sulphite that is practically free from specks and other extraneous products?

Mr. MURPHY. We can not get it absolutely free from specks.

The CHAIRMAN. I said practically.

Mr. MURPHY. Yes, sir.

The CHAIRMAN. What is the difference in value ordinarily between your grade of sulphite and the ordinary grade?

Mr. MURPHY. You are referring to bleached sulphite?

The CHAIRMAN. Yes, sir.

Mr. MURPHY. What is the question?

The CHAIRMAN. What is the difference in the market value between your grade of bleached sulphite and the ordinary bleached sulphite?

Mr. MURPHY. We are getting \$5 to \$7 a ton more for it than any other domestic make that I know of.

The CHAIRMAN. Where do you get your wood supply from?

Mr. MURPHY. Where all the rest of the mills get it from, here, Wisconsin, Michigan, Minnesota, and Canada.

The CHAIRMAN. What kind of woods do you use for this sulphite?

Mr. MURPHY. Largely spruce.

The CHAIRMAN. Some hemlock?

Mr. MURPHY. Some.

The CHAIRMAN. Do you buy your wood through the Pulp Wood Company, of Appleton?

Mr. MURPHY. Yes, sir.

The CHAIRMAN. Do you know where the spruce wood comes from?

Mr. MURPHY. Yes, sir; I think I do.

The CHAIRMAN. Minnesota, mainly.

Mr. MURPHY. Yes, sir.

The CHAIRMAN. And the hemlock from Wisconsin?

Mr. MURPHY. Wisconsin and Michigan.

The CHAIRMAN. How much of a supply of wood have you got on hand?

Mr. MURPHY. Enough to run us for six or eight months.

The CHAIRMAN. How much would that be?

Mr. MURPHY. That would represent what, in cords, would be about 12,000 cords.

The CHAIRMAN. What is your opinion in reference to the future supply of pulp wood in this locality? Do you think there is any danger of a shortage?

Mr. MURPHY. I do not think there is in our time.

The CHAIRMAN. Do you get a good quality of spruce wood now?

Mr. MURPHY. We do not.

The CHAIRMAN. Are you satisfied as to the quality of the spruce pulp wood now that you receive?

Mr. MURPHY. We have to be.

The CHAIRMAN. That is the best you can do, you think?

Mr. MURPHY. That is the best we can do.

The CHAIRMAN. Would it be any advantage to you if you could get spruce pulp wood from Ontario?

Mr. MURPHY. It would at a price.

The CHAIRMAN. What do you mean? Do you mean depending on the cost?

Mr. MURPHY. Yes, sir.

The CHAIRMAN. You are now paying \$11 for spruce wood?

Mr. MURPHY. Yes, sir.

The CHAIRMAN. That is a high price for any kind of wood?

Mr. MURPHY. Yes, sir. It is the best we can do under the present conditions.

Mr. RYAN. Do you run all day and all night?

Mr. MURPHY. We do when we have orders.

Mr. RYAN. Are you running now?

Mr. MURPHY. Yes.

Mr. RYAN. Thirteen and eleven hours?

Mr. MURPHY. Yes, sir.

The CHAIRMAN. What is your paper capacity?

Mr. MURPHY. About 15 tons of finished writing paper in twenty-four hours.

Mr. RYAN. How much are you making now?

Mr. MURPHY. We make that when we run; and when we don't, we shut down.

Mr. RYAN. You run your full capacity or not at all?

Mr. MURPHY. Yes.

Mr. RYAN. Are you running now?

Mr. MURPHY. Yes, sir.

Mr. RYAN. The wage that you pay to your men, I suppose, is the same as others around in this section?

Mr. MURPHY. I do not know what other people are paying. Our help is all employed by the hour.

Mr. RYAN. State some of the particular positions and the hourly wages, if you will.

Mr. MURPHY. I could not do it without referring to my pay roll.

Mr. RYAN. The increased price that you get for your pulp is occasioned by the extraordinary care that you take in the manufacture?

Mr. MURPHY. Yes, sir.

Mr. RYAN. It costs more to produce it, doesn't it?

Mr. MURPHY. Yes, sir.

Mr. RYAN. You stated, I believe, that you get six or seven dollars a ton more than others.

Mr. MURPHY. Five to seven dollars.

Mr. RYAN. It costs a great deal more a ton to make it than it does the other?

Mr. MURPHY. Yes, sir.

Mr. RYAN. The skill of the men does not enter into all, does it?

Mr. MURPHY. It is eternal vigilance and attention from the time that you start the wood in until you take it out as a finished product.

Mr. RYAN. Do the men making this sort of wood pulp that I have in my hand receive any better hourly wage than the men in the other mills making sulphite?

Mr. MURPHY. I think they do.

The CHAIRMAN. Have you got any special machinery?

Mr. MURPHY. No, sir. We hire and pay for reasonably good intelligence to make that grade of pulp.

The CHAIRMAN. Will you show us the part of the mill where they take the knots out?

Mr. MURPHY. Yes, sir; any part you wish to see.

The committee then examined the mills of the Riverside Fiber and Paper Company and the Appleton Mill of the Kimberly-Clark Company.

MENASHA HOTEL, MENASHA, WIS., *September 18, 1908—9.45 a. m.*

STATEMENT OF MR. F. J. SENSENBRENNER.

The CHAIRMAN. You have been sworn before?

Mr. SENSENBRENNER. I have; yes, sir.

The CHAIRMAN. Have you prepared some information to present before the committee?

Mr. SENSENBRENNER. I have, sir; particularly upon the question of the range in prices as far back as I can discover our records in the matter, and the record includes the period from 1878 to 1907, both inclusive. As to the period from 1898 to 1907, inclusive, I have already testified, and it is in the record. If desired, in order to make the record consecutive, I will testify as to the period from 1878 to 1907, inclusive.

The CHAIRMAN. I think it would be just as well, probably.

Mr. SENSENBRENNER. These prices are the average of our selling prices during each year up to the year 1898, after which date they are the average of our invoice prices on our total output in news; that is, for the years 1878 to 1897 they are the average of our selling prices and from 1898 to 1907, inclusive, the average of our shipping prices; but as we make yearly contracts only, as a rule, with rare exceptions there won't be a very material difference between the two methods.

The CHAIRMAN. Explain the difference between the sales price and the invoice price.

Mr. SENSENBRENNER. None, unless you average them, because, if we make a contract extending for a period of a year, for instance, and we happen to make it in the middle of one year and it runs into the middle of the following year, by taking the average of the invoice prices it might not be representative of the average of prices at which we sell paper in the calendar year.

The CHAIRMAN. One is the average of the price at which sales are made or contracts made for a particular year?

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. And the invoice price is the price which you receive for paper delivered during the year?

Mr. SENSENBRENNER. Yes, sir. For the year 1878 \$7.30 per 100.

The CHAIRMAN. This is for news print paper?

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. Of the ordinary quality which is now in use?

Mr. SENSENBRENNER. The ordinary quality prevailing at the time. Of course, the ingredients in the paper made at that time and now differ somewhat: 1879, \$7.21; 1880, \$7.62; 1881, \$7.08; 1882, \$6.41; 1883, \$6.31; 1884, \$6.17; 1885, \$5.89; 1886, \$4.95; 1887, \$4.27; 1888, \$4.23; 1889, \$4.10; 1890, \$3.75; 1891, \$3.18; 1891, \$3.02; 1892, \$2.82; 1894, \$2.38; 1895, \$2.11; 1896, \$2.09; 1897, \$1.69; 1898, \$1.79; 1899, \$1.7705; 1900, \$2.14; 1901, \$1.998; 1902, \$1.949; 1903, \$2.039; 1904, \$2.039; 1905, \$1.97; 1906, \$1.767; 1907, 1.975.

The CHAIRMAN. The lowest point was reached in 1897?

Mr. SENSENBRENNER. 1897; yes, sir.

The CHAIRMAN. At which time the average sales which you made for that year was at \$1.69 a hundred?

Mr. SENSENBRENNER. Yes, sir; these prices, I may say, Mr. Chairman, are all f. o. b. our mills.

The CHAIRMAN. These figures are taken from the actual sales made by your company of news print paper?

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. From any particular mill?

Mr. SENSENBRENNER. From all of our mills where we happened to be making news. Not of every sale which we made, but representative sales, because within the time I had to prepare this data I could not take every sale and the tons shipped against every price into account.

The CHAIRMAN. These figures are fairly representative of the actual market sales for that time?

Mr. SENSENBRENNER. Yes, sir. I may say in that connection, Mr. Chairman, that up to 1891 we were making this news paper on machines ranging from 57½ inches to 82 inches in width running at a speed of from 150 to 175 feet per minute. In 1891 we installed two 106-inch machines at Kimberly and commenced making practically all of our news paper there, which machines run at a speed from 250 to 275 feet per minute. In 1894, I think it was, we installed a 120-inch machine at Kimberly which we ran at a speed of from 300 to 325 feet per minute. That mill was destroyed by fire in either 1901 or 1902, early in 1902. I think, when we commenced making all of our print at Niagara, at which point in 1900 we installed two 155-inch machines running at from 420 to 475 feet per minute. There was, of course, a considerable decrease in the cost of production with the increase in width and speed of machines, but that decrease in cost of production, for some years past, has been materially offset by the increased cost of materials; for instance, in 1899—that is as far back as my connection with the company dates—we were buying our spruce pulp wood delivered in the Fox River Valley at from \$4.75 to \$5 per cord as against \$11 per cord that we are paying now. True, there is not a considerable amount of news paper made in the Fox River Valley to-day but the price of spruce pulp wood in the Wisconsin River Valley, where considerable news is made, is substantially the same as in the Fox River Valley; and in districts, or rather in mills, located nearer the wood supply there has been a corresponding increase in the cost of wood. Take our Niagara Wisconsin mill, for

instance, the increase in price and the per cent of increase is already in the record.

The CHAIRMAN. You go back with your figures as far as 1878?

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. At which time news print sold at something over 7 cents a pound?

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. The machines then were narrow and slow?

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. And pulp wood was cheap?

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. Through progress in the manufacture, widening of the machine, increasing of the rapidity of the paper going through the mills, and other ways you decreased the cost from 7 cents a pound to 1.69 cents a pound. What was the cost of the pulp wood in 1897, do you remember? That is, I do not mean exactly, but was it sold low?

Mr. SENSENBRENNER. I don't know whether I have any data bearing on that point as far back as that.

The CHAIRMAN. There must have been many economies of manufacture introduced between 1878 and 1897 to reduce the selling price from 7 cents to less than 2 cents a pound.

Mr. SENSENBRENNER. There were, both in size and speed of machines and in the character of the material used in the paper.

The CHAIRMAN. Of course, in 1878 you did not use so much ground wood, I suppose?

Mr. SENSENBRENNER. No, sir.

The CHAIRMAN. Can you tell now when the use of ground wood became so prevalent that you brought it down to 75 to 80 per cent of the constituent material in news print paper?

Mr. SENSENBRENNER. So far as we are concerned, with the installation of our machines at Kimberly. Although at that time we had not come to a full realization of the possibilities of the use of ground wood, as is proved by the fact that we built a ground wood mill of 13 tons capacity to supply two 106-inch machines and some other machines making grades in which we used a nominal percentage of ground wood only.

The CHAIRMAN. When was that mill constructed?

Mr. SENSENBRENNER. The ground wood mill in 1899 and the paper mill in either 1890 or 1891. I think it was constructed in 1890 and we started it in 1891.

The CHAIRMAN. At that time in 1889 and 1890, you did not appreciate the fact of using so much ground wood in news print paper?

Mr. SENSENBRENNER. No, sir.

The CHAIRMAN. I noticed the reduction on the figures that you gave seemed to be rather steady?

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. A gradual reduction every year, I think?

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. From 1878 to 1897?

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. It is very desirable that we should ascertain whether that is on account of economies of production or whether it relates partly also to the cost of pulp wood. There was no reduction in the cost of pulp wood during that time?

Mr. SENSENBRENNER. I think not. I have here a memorandum of the testimony I gave as to the cost of the pulp wood at Niagara, which I find dates back to 1898. You asked a question about 1897. The cost of spruce at Niagara during that year was \$3.70. In 1907 it was \$8.80.

The CHAIRMAN. In 1898?

Mr. SENSENBRENNER. \$3.70.

The CHAIRMAN. That was f. o. b. Niagara?

Mr. SENSENBRENNER. F. o. b. Niagara and in the river at Niagara. We got a considerable quantity at that time by river.

The CHAIRMAN. That was exceptionally low, of course?

Mr. SENSENBRENNER. The advantage of location had a good deal to do with it. As I say, a considerable per cent of the wood we got at that time came by river, and the transportation cost was nominal.

The CHAIRMAN. Since 1897 the price of spruce wood—and you can not use anything else for ground pulp advantageously, can you?

Mr. SENSENBRENNER. No, sir; we are using a limited amount of poplar, pine, and balsam, but, measured by our total consumption for ground-wood purposes, it is insignificant.

The CHAIRMAN. The price of spruce pulp wood has increased from less than \$4 a cord to, this season, \$11 a cord f. o. b. at the mills?

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. Doesn't that lead you to think that it is a very important matter to know where the future spruce-pulp wood is to come from?

Mr. SENSENBRENNER. Decidedly.

The CHAIRMAN. Some of the gentlemen who testified before us seem to think it is a very simple proposition; that there is plenty and abundance of wood all around us waiting to be hauled in.

Mr. SENSENBRENNER. Well, as to spruce, I am inclined to disagree. I still think, however, that it is not a matter of the immediate present that we are going to be troubled with securing our supply of spruce, and that for some fifteen to twenty-five years there is a supply in this country that can be reached by the mills in this State at prices at which they can exist, but on account of the increasing competition of the lumbermen on both spruce and hemlock and the increasing distances from which we have got to ship this wood, the consequent increase in transportation, the prices are steadily tending higher. As to the time when prices will reach a point that we can not deliver the spruce wood to the mills so that they can compete with other manufacturers more favorably located, that is the question. But, as a matter of fact, some of the Wisconsin mills have from twelve to fifteen years past received some of their supply from the Province of Ontario. They have received from fifteen to thirty thousand cords per annum.

The CHAIRMAN. What mills, for instance.

Mr. SENSENBRENNER. The mills being supplied by the Pulp Wood Company of Appleton chiefly. Some of the Wisconsin River mills have received wood from Ontario. I think the Canada wood, as I said before, has ranged from fifteen to thirty thousand cords per annum.

The CHAIRMAN. Will the Appleton Pulp Wood Company be able to give us considerable information in regard to the Canadian spruce wood of Ontario?

Mr. SENSENBRENNER. That is as to the quantity received from there or the quantity available there?

The CHAIRMAN. The quantity available there and the correct method of getting it transported.

Mr. SENSENBRENNER. Mr. Taylor, who testified here yesterday, testified somewhat along that line.

The CHAIRMAN. He seemed to know very little about it, I thought. How do they bring that pulp wood here?

Mr. SENSENBRENNER. The pulp wood that was delivered to them was rafted across the Lakes and brought down to Green Bay or brought down to Green Bay Point or Long Tail Point, above Green Bay a short distance. It is a little bit hazardous undertaking at certain seasons of the year, but the bulk of it, and I think practically all of it, has been brought that way.

Mr. RYAN. Then by water from that point?

Mr. SENSENBRENNER. Then by water from that point.

The CHAIRMAN. Where is it rafted from?

Mr. SENSENBRENNER. The last two or three years, so far as the Pulp Wood Company of Appleton was concerned, rafted from Puckoso and Pancake rivers, on the east shore of Lake Superior. I understood, I am not positive about that, that the Northern Paper Company brought some over from the Port Arthur district this past season. That is on the north shore of Lake Superior. I am inclined to think they rafted that also. As to the supply available to the pulp mills, domestic supply that is, of course, that depends a good deal upon the lumber market conditions, and consequently the competition we will receive from the lumbermen. The time was, and it is only a few years back, that we did not come in competition with the lumbermen on either spruce or hemlock to any extent. We used in hemlock what the lumbermen could not use, and in spruce the lumbermen only used down to a certain diameter and did not use it nearly as close as they do when lumber prices are high.

Mr. RYAN. At the time you speak of, what was the diameter that the lumbermen would saw down to, about 10 inches or 12 or 18 inches?

Mr. SENSENBRENNER. I think Mr. Ballou is more competent to testify on that point than I am. To-day, on hemlock, we are competitors of the lumbermen with everything that the hemlock produces.

The CHAIRMAN. Saw logs and all?

Mr. SENSENBRENNER. Saw logs and all, on account of the increased consumption of hemlock by the pulp mills. As to whether we get a supply or not depends altogether on whether we can afford to pay the prices that they can secure by putting it into lumber. With the exception of this year, hemlock has been a very short commodity for the pulp mills during the previous three years.

The CHAIRMAN. You only use the waste of hemlock logs?

Mr. SENSENBRENNER. Small timber, crooked logs, and shaky butts.

The CHAIRMAN. That was the waste of the hemlock forest?

Mr. SENSENBRENNER. Yes; so far as sawmill men were concerned.

The CHAIRMAN. Now you use the entire hemlock forests?

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. If you can get it?

Mr. SENSENBRENNER. If we can get it; yes, sir.

Mr. RYAN. Is that the reason that hemlock is so dear in the eastern market; that is, the competition between the lumbermen and the pulp men, has it increased the price, or is it because there is a scarcity of it?

Mr. SENSENBRENNER. I am not so familiar with the condition in Pennsylvania, the leading hemlock State of the East, as I understand it.

The CHAIRMAN. Some people claim that they make pulp out of everything in Pennsylvania, even down to the leaves and the buds. How much has been the increase in the price of hemlock, if you can tell going way back. You were paying for hemlock in 1900 \$3.95 a cord; in 1907 \$4.94?

Mr. SENSENBRENNER. Yes, sir; that is, at our Niagara mill.

The CHAIRMAN. That is in Quinnesec. Where is Quinnesec?

Mr. SENSENBRENNER. Niagara is the post-office and Quinnesec is the shipping station. Niagara and Quinnesec are the same. I testified in Washington, I think, in connection with these figures that we get a considerable part of our hemlock on the river at Niagara, and about 25 per cent of our consumption was cut from our own stumpage, and the price at which we charged it into our cost was based upon the cost of the stumpage and not what we could have sold it for at the time we cut it. I have some data here showing the range in price on hemlock secured for our Fox River mill at Kimberly from 1898 to 1907, both inclusive: 1898, \$3.24 per cord; 1907, \$7.57 per cord.

The CHAIRMAN. That is for hemlock or spruce?

Mr. SENSENBRENNER. Hemlock.

The CHAIRMAN. For 1907?

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. That is for the Fox River mill?

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. \$7.54 as against \$4.94 over at the Niagara mills?

Mr. SENSENBRENNER. At Niagara mill; yes, sir.

The CHAIRMAN. What is the cost of spruce at the Niagara mill now?

Mr. SENSENBRENNER. 1907, \$8.80 per cord.

Mr. CHAIRMAN. Yes; I have that. It is \$11 a cord f. o. b. here at this place now?

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. What is it at Niagara?

Mr. SENSENBRENNER. I have not the average here, I am sorry to say, for the season of 1907 and '08; but I do not think it will vary from the figures of 1907.

The CHAIRMAN. It is considerably cheaper there than it is here then?

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. That is over \$2 a cord?

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. Is there that difference in the freight from Minnesota points?

Mr. SENSENBRENNER. We get wood up there at rates ranging from 2½ to 5 cents per cord in addition to which we get some wood by river.

Mr. BALLOU. I think you made an error. You said per cord. I think you meant per hundred.

Mr. SENSENBRENNER. Two and a half cents per hundred. We get our wood up there for the Niagara mill at freight rates ranging from 2½ to 5 cents a hundred.

The CHAIRMAN. That is from where, Duluth?

Mr. SENSENBRENNER. No; from northern peninsula territory, as against the Duluth rate of 8 cents per hundred.

The CHAIRMAN. How does it happen that you get spruce wood from the northern peninsula for the Niagara mill and get the same wood from Duluth points for the Fox River mills? That is practically crossing freight.

Mr. SENSENBRENNER. Hardly.

The CHAIRMAN. It may not be hardly. It looks like it to look on the map.

Mr. SENSENBRENNER. If you took the location of Niagara as compared with Duluth, and Fox River as compared with Duluth, into account probably, but we are drawing our supply for the Niagara mill from this territory here. [Indicating.]

The CHAIRMAN. Why do not the Fox River points draw it from the northern peninsula in Michigan? It is close by.

Mr. SENSENBRENNER. The rates are not so favorable to Fox River points as they are to Niagara and the supply up there in that territory is limited.

The CHAIRMAN. From the Northern Peninsula you get water rates to Fox River points and you do not get water rates to Wisconsin River points.

Mr. BALLOU. You can get water rates, but the wood doesn't grow where you can get the water rates.

Mr. SENSENBRENNER. There is considerable wood on the western point of the Northern Peninsula out here and considerable of that wood does come to Fox River. We have only received from there by water this year from 25,000 to 28,000 cords; that is, the Fox River.

The CHAIRMAN. I suppose you endeavor to get it the cheapest way that is possible?

Mr. SENSENBRENNER. We do.

The CHAIRMAN. Spruce wood in the Fox River mills cost in the neighborhood of \$2 a cord more than it does at the Wisconsin mills?

Mr. SENSENBRENNER. No. At our Niagara mill. The Wisconsin River territory is, from most wood-producing territories, on practically the same basis of rate as the Fox River territory, as to spruce wood particularly. What limited supply there is in the Northern Peninsula is right on our doorstep practically.

The CHAIRMAN. Do you think you have an inexhaustible supply of spruce wood in the Michigan Northern Peninsula?

Mr. SENSENBRENNER. No, Mr. Chairman, far from it.

The CHAIRMAN. You are paying there now nearly \$9 a cord delivered close to the forest?

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. As against \$3.70 a cord in 1898?

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. Don't you think it is a good time to figure upon where you are going to get the supply ten years from now, when the cost has much more than doubled within the last ten years?

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. Have you figured on it?

Mr. SENSENBRENNER. Somewhat; yes, sir.

The CHAIRMAN. I will be glad to have what your judgment is.

Mr. SENSENBRENNER. I think it is of interest to the Wisconsin manufacturers, or the northwestern manufacturers, or rather wood

manufacturers of the country, to secure the removal of restrictions upon the exportation of pulp wood from the province of Ontario, and to maintain freedom from restrictions or the removal, if there be any at this time, and I think there is a handicap of 25 cents a cord on wood from Quebec to the eastern manufacturers. So far as I am concerned, I am willing to stand on the Republican platform which provides for a revision of the tariff to the basis of such duties as will equal the difference between the cost of production at home and abroad, together with a reasonable profit to American industries. Now, my theory is that the way to go at the Canadian to secure the open door at Ontario is to increase the duty to practically a prohibitive point until we can make some arrangement with him whereby that door will be maintained open to us and the door of Quebec to our eastern competitors, when automatically a reduction in the duties should take place to the basis proposed in the Republican platform. Now, the countervailing duty under the present tariff undoubtedly was framed to prevent any restriction being placed upon the exportation of wood from the Canadian provinces. As I understand it, that tariff provides that if Canada imposes any export duties on the exportation of pulp wood a corresponding increase in the duties on paper and pulp should be made, but the Canadian, so far as the Ontario government is concerned, evaded that condition of the tariff law by prohibiting exportation of such pulp wood from Ontario as was cut on Crown lands.

The CHAIRMAN. Of course the tariff provision as to countervailing duty is a general provision. It has no special reference to pulp wood or any forest product, but only relates to a charge imposed by the Government for the exportation, and our authorities have held, and I think properly, that they could take into consideration the extra charge of 25 cents a cord imposed by Quebec on pulp wood cut on the Crown lands and add that to the duty on wood pulp or print paper, but they could not take into consideration and add to the tariff anything where the province of Ontario forbids the exportation of pulp wood. There is no way of determining in the first place how much that would add to the tariff on wood pulp or print paper when the exportation of pulp wood is entirely prohibited. There is nothing in the law upon which to base it. Suppose you could get the free exportation of pulp wood from Ontario; that is, obtain pulp wood on precisely the same terms for exportation that you could for manufacture in Canada, could you then afford to compete on even terms on wood pulp?

Mr. SENSENBRENNER. I think not.

The CHAIRMAN. You think the Canadian can manufacture wood pulp and ship it to the United States cheaper or upon better terms than you can manufacture wood pulp made from Canadian pulp wood?

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. Why?

Mr. SENSENBRENNER. Because of his nearness to the supply of the raw material.

The CHAIRMAN. Your Niagara mill is very close to the pulp-wood supply at present?

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. Yet you are in competition with the New York print-paper manufacturer who imports a large proportion of his pulp wood from Quebec, a considerable distance away, and you have not driven him out of the market yet?

Mr. SENSENBRENNER. Not quite.

The CHAIRMAN. I doubt whether you can make print paper quite as cheaply as they do. Maybe you can.

Mr. SENSENBRENNER. According to the testimony of some of our eastern friends, we are not making it as cheaply.

The CHAIRMAN. That was my recollection.

Mr. RYAN. How do you account for that when you are so close to the raw material?

Mr. SENSENBRENNER. That is, as to our particular Niagara mill, or generally the western mills?

Mr. RYAN. No, the Niagara mill.

Mr. SENSENBRENNER. They may be better managers, better manufacturers. I do not recall the testimony of some of the larger mill men who testified as to the cost of production and as to what their cost of pulp wood was.

The CHAIRMAN. Isn't it almost invariably true in the world that in the older communities they manufacture the same article cheaper than they do in the newer communities?

Mr. SENSENBRENNER. I am inclined to think so; yes, sir.

The CHAIRMAN. Isn't it a universal rule almost that there is less waste in the older communities than where there is so much that is cheap and easy all around?

Mr. SENSENBRENNER. I am inclined to think so, yes.

The CHAIRMAN. Is there plenty of water power to manufacture wood pulp and print paper in Ontario?

Mr. SENSENBRENNER. There are some powers there. As to the number of them and how extensive, I am not thoroughly posted. There are some very good powers.

The CHAIRMAN. Are the shipping facilities good from Ontario for paper?

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. From the territory north of Lake Superior they are not very good, are they?

Mr. SENSENBRENNER. Not very good; no, sir.

The CHAIRMAN. It requires far better shipping facilities for news print paper than it does for the wood, doesn't it?

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. Supposing the price of pulp wood jumps up another hundred per cent in ten years, what will you people do?

Mr. SENSENBRENNER. Dismantle our mills and use our water powers to make electrical energy and sell the power.

The CHAIRMAN. Sell it for what?

Mr. SENSENBRENNER. For various purposes.

The CHAIRMAN. We can not get along without the morning papers.

Mr. SENSENBRENNER. I think we can get along without some of them pretty comfortably.

The CHAIRMAN. I am afraid you won't be able to.

Mr. SENSENBRENNER. I am afraid not.

The CHAIRMAN. You can not proceed upon the theory that as a country we can abandon the use of paper or news print paper either. The cost of pulp wood affects not only news print paper, but practically all other kinds of paper, as I understand it.

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. It would have an effect upon any kind of paper.

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. Although there might be no pulp wood used in connection with it?

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. You use some sulphite in nearly every grade of paper that is made in this valley, don't you?

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. Do you consider that it will be feasible to draw pulp wood from Montana, Washington, or Oregon for use in the Fox River Valley?

Mr. SENSENBRENNER. Montana may be a possible proposition, by roasting it and drying it to a certain point or permitting it to dry to a certain point. I am a little doubtful about Oregon and Washington.

The CHAIRMAN. Montana is some little distance away?

Mr. SENSENBRENNER. Some little distance away; yes, sir.

The CHAIRMAN. Never likely to be thickly populated and hence railroad facilities are not likely to be of the best. Don't you think it would be a pretty expensive proposition?

Mr. SENSENBRENNER. Likely to be, although personally I have no information as to the conditions in western Montana.

Mr. RYAN. They have considerable water power there?

Mr. SENSENBRENNER. Yes.

The CHAIRMAN. Do you think you could manufacture ground wood as against Canadian competition with perfect success if you could have pulp wood from the north shore of Lake Superior and wood pulp were admitted free of duty?

Mr. SENSENBRENNER. I don't think so; no, sir.

The CHAIRMAN. Ground pulp?

Mr. SENSENBRENNER. Ground pulp; yes, sir.

Mr. RYAN. Notwithstanding the fact that they have no water power in that vicinity—that is, comparatively speaking, no water power?

The CHAIRMAN. We do not know how much they have got.

Mr. SENSENBRENNER. I do not know how much they have got. For instance, the Spanish River Mill at Espanola, on Georgian Bay, they have got a great water power there. I understand they are making from 130 to 150 tons of ground wood a day with possibilities of greater developments, and there are other powers in Ontario. The Booth is in Ontario, I think, isn't it, Mr. Norris?

Mr. NORRIS. It is on the line between Ontario and Quebec. It is on one side of the river in Ontario and the Eddy Mill is within a stone's throw in Quebec.

The CHAIRMAN. That question does not enter into the manufacture of wood pulp in Canada?

Mr. SENSENBRENNER. No.

The CHAIRMAN. No forbidding of exportation from Ontario to Quebec?

Mr. SENSENBRENNER. No.

The CHAIRMAN. Do you think the price of pulp wood is going down this next year?

Mr. SENSENBRENNER. I am inclined to think it will be lower this year, for two reasons: First, the surplus which the mills received during this past season, and secondly, I do not think the competition of the lumbermen will be very active this coming season.

Mr. RYAN. Why won't the competition be active?

Mr. SENSENBRENNER. The lumber market outlook is not very favorable yet, and the general sentiment among lumber men, so far as I have been able to ascertain, is that their cut will be comparatively little this coming winter.

The CHAIRMAN. In the pulp wood which we have seen here, and there seems to be a very large stock on hand at nearly all the mills, particularly of spruce wood, I should not think that would enter into any competition, so far as the lumber was concerned.

Mr. SENSENBRENNER. On account of the size of it?

The CHAIRMAN. Yes. Certainly it is too small for saw logs of any kind. I suppose that that comes where the operators clean the forests up?

Mr. SENSENBRENNER. Yes.

The CHAIRMAN. And this small spruce they ship here or sell?

Mr. SENSENBRENNER. Yes.

Mr. RYAN. Where does that ground-wood mill on the Georgian Bay find a market for its product?

Mr. SENSENBRENNER. A good part of it in the United States. I am inclined to think the bulk of their production comes to the United States.

Mr. RYAN. What part—out in this country?

Mr. SENSENBRENNER. In this country and through the Central States territory. I have no doubt in times of stress they ship some of it East; and a part of it is exported. It depends upon market conditions for ground wood, and the market conditions for ground wood are affected largely by the stage of water in various sections of the country. Right at present I have no doubt that they have an abundant market for every pound they can produce right in the United States.

Mr. RYAN. Under normal conditions, do they find a market for ground wood in Wisconsin, either in the Wisconsin River Valley or the Fox River Valley?

Mr. SENSENBRENNER. To a limited extent; yes, sir.

The CHAIRMAN. How about the water power at the Soo?

Mr. SENSENBRENNER. They make considerable ground-wood pulp. I think 100 to 125 tons a day is their capacity.

The CHAIRMAN. Have you used any of that?

Mr. SENSENBRENNER. We have not used any Soo pulp in recent years. We have some of it in transit to us now.

The CHAIRMAN. Have you any judgment as to the quality of ground pulp made from the Canadian spruce, as compared with that made from the spruce of Wisconsin and Minnesota and Michigan?

Mr. SENSENBRENNER. I do not know that I have. I should not say that there would be very much difference, though I think their output would be materially greater on account of the difference in size of wood.

The CHAIRMAN. That is the larger wood?

Mr. SENSENBRENNER. The larger the wood the less the shrinkage.

The CHAIRMAN. I think one of the gentlemen who testified before us stated that the wood pulp he purchased from the Soo company, I believe, was not at all satisfactory; they were not able to use it without using a great deal more sulphite than was profitable.

Mr. SENSENBRENNER. That, I rather think, depends somewhat upon market conditions. When there is a big demand for pulp they make it for quantity rather than quality, and the poor paper manufacturer who has to buy it at such times has to take the quality he can get in order to keep running.

The CHAIRMAN. That is a trick of the trade that has not been divulged before. Tell us about it.

Mr. SENSENBRENNER. I think that is about the whole of the story, Mr. Chairman.

The CHAIRMAN. Does that make any more of the pulp?

Mr. SENSENBRENNER. They sharpen their stones and do not grind it as well. They grind it coarser.

The CHAIRMAN. Does that make more of it?

Mr. SENSENBRENNER. They can make it faster; yes, sir.

The CHAIRMAN. They make it faster?

Mr. SENSENBRENNER. Yes, sir; increase their product per grinder.

The CHAIRMAN. It makes the paper a little coarser; is that it?

Mr. SENSENBRENNER. Yes.

The CHAIRMAN. Do you care to testify in regard to the Dean-Shibley, whatever it is, proposition?

Mr. SENSENBRENNER. It depends upon what the committee would like to know, if it is left to my choice.

The CHAIRMAN. Well, we have not thought of going into that for several reasons which I do not care to state, but if you have anything to say with reference to it, we will be very glad to hear you. You receive immunity, you understand, for what you testify before the committee.

Mr. SENSENBRENNER. I think if I should care to testify upon the subject there would be very little that I could say.

The CHAIRMAN. That project has been revived, as I understand it?

Mr. SENSENBRENNER. There has been an effort made on it during practically the whole of this year; but as to the probabilities of success, that is largely a matter of speculation.

The CHAIRMAN. Has there been any reduction in the labor cost since the panic of last fall?

Mr. SENSENBRENNER. No, sir; not so far as our mills are concerned, except to a very limited extent. Our roustabout labor, so called, of which there was an extreme shortage during nearly the whole of last year and of the year before, has been restored to the normal wage, but that is so small a per cent of our total pay roll as to be insignificant.

Mr. RYAN. What do you mean by normal wage?

Mr. SENSENBRENNER. Well, the wages prevailing during normal time, when there was not a shortage in the labor market.

Mr. RYAN. What is that per hour per man, what you call roustabout labor?

Mr. SENSENBRENNER. We pay different wages in the different occupations.

The CHAIRMAN. You went into that quite fully before?

Mr. SENSENBRENNER. Yes, sir.

Mr. RYAN. But that particular thing that I asked about—the roustabout labor, so called?

Mr. SENSENBRENNER. \$1.65 to \$1.75. We were paying as high as \$2 during the times of shortage of labor. That class of labor has been restored for from \$1.65 to \$1.75.

Mr. RYAN. For an average of twelve hours' work a day?

Mr. SENSENBRENNER. Yes; four men.

The CHAIRMAN. You were paying truckers and pilers, as you testified, \$1.62½ a day.

Mr. SENSENBRENNER. Yes; loaders, \$1.75, and the grinder men \$2. I think that is all in the record, isn't it, Mr. Chairman?

Mr. RYAN. Yes.

The CHAIRMAN. That is the reason I asked you whether there had been any substantial change.

Mr. SENSENBRENNER. No, sir.

The CHAIRMAN. Does Mr. Hurlbut have anything to do with the routing of the pulp wood as well as the product of the mills?

Mr. SENSENBRENNER. I think not. As to pulp wood, Mr. Ballou is more competent to testify on that point than I am.

The CHAIRMAN. Have you any other figures there that you have gathered for us?

Mr. SENSENBRENNER. I have not.

STATEMENT OF M. H. BALLOU AT MENASHA, WIS.

The CHAIRMAN. You testified before?

Mr. BALLOU. Yes, sir.

The CHAIRMAN. Have you prepared some information for us?

Mr. BALLOU. Not any.

The CHAIRMAN. I thought you agreed to.

Mr. BALLOU. When?

The CHAIRMAN. The other day, when we had an informal talk here.

Mr. BALLOU. I do not believe it was left to me to prepare any figures. I went away the other day, and just got back this morning, and consequently have not had an opportunity to go into any figures.

The CHAIRMAN. What have you got to say in reference to the probable future supply and cost of pulp wood?

Mr. BALLOU. That is very largely a matter of transportation. There is no doubt, of course, our pulp wood is getting at a greater distance continually. In respect to the pulp wood of this country—I mean the whole country reaching clear to the coast—there is no question but what there is an almost unlimited supply. Now, the only question is the cost of reaching it, the cost of transportation, moving it to the mills. Naturally, under present conditions, a long rail haul from the West, we could not expect the railroads to haul that for a price that we could afford to use it, and if the same conditions existed north of us in Ontario Province that exist in the West we naturally would go to Ontario for wood on account of transportation.

The CHAIRMAN. If Ontario were part of the United States?

Mr. BALLOU. Yes; if the same conditions existed in Ontario that exist in our own States, naturally we would go to Ontario for our

wood as against the Western States. Wholly on account of transportation.

The CHAIRMAN. Isn't it almost a sure thing that as spruce wood gets farther and farther from the mills, and there is consequently an enhancement of the price of paper, that the spruce forests of Ontario will be developed by some one, that the spruce wood there will either be manufactured into wood pulp and print paper in Ontario, or else it will be brought here and used in the mills already constructed?

Mr. BALLOU. That will depend wholly upon the action of the Government in regard to the tariff. If our Government took the same position that Ontario is taking—prohibited the movement of that material here—there certainly would not be any of it sent here. On the other hand, if they remove any restrictions, then they certainly would enter into the manufacture there.

The CHAIRMAN. Wouldn't that be a good deal like proposing to have England or Germany prohibit the importation of wheat?

Mr. BALLOU. Possibly.

The CHAIRMAN. You don't think that is very likely to come about, do you?

Mr. BALLOU. Well, I don't know. I don't think so, not with the newspapers taking the other side, and they seem to have control at the present time.

The CHAIRMAN. What makes you think they have control?

Mr. BALLOU. Well, they have so far.

The CHAIRMAN. They never have had their way about this proposition, have they?

Mr. BALLOU. They have, at times, yes.

The CHAIRMAN. The newspapers have been running longer than we have.

Mr. BALLOU. They have not agitated the question so extensively as recently.

The CHAIRMAN. Mr. Norris has appeared before different committees of Congress and other bodies for many years?

Mr. RYAN. Ten years.

The CHAIRMAN. More than ten years.

Mr. BALLOU. I did not know that. That probably is the reason he is so well versed.

Mr. RYAN. You would want the duty so high as to permit you to transport the pulp wood from the Far West?

Mr. BALLOU. No; I would not. The solution of the proposition in my mind is this: Canada, as I have seen it, and I have been over there, is not, nor will not be in the very near future, a successful manufacturing proposition on paper.

The CHAIRMAN. That is, you mean manufacturing paper?

Mr. BALLOU. You don't manufacture on paper, you manufacture the paper.

The CHAIRMAN. There is quite a difference?

Mr. BALLOU. Yes; I will admit that. The Canadian proposition, as I see it, is rather of a lumbering proposition; that is, labor over there is of a cheaper nature than it is here. The French Canadian, which predominates, is an axman. He could not run a paper machine, unless he developed differently from any of the help that we

have had of the same class, in a hundred years. He is an axman. My theory of the proposition is that the pulp possibly could be made to an advantage in Canada, because there is very little help required in the manufacture of ground wood pulp; but as to the paper end of it, it is a different proposition entirely. I can not understand how the removal of the tariff on paper from Canada would reduce the cost of the paper to the publishers. I think Mr. Norris will agree with me that any of the paper manufacturers that now exist in Canada will testify that they never have made any money to any extent. There may be isolated cases, but I am taking it as a general proposition.

The CHAIRMAN. They will testify precisely along the same lines then, that the American manufacturers will testify?

Mr. BALLOU. I haven't heard of any testimony by the American manufacturers that they have not made any money in their paper mills.

The CHAIRMAN. Have you made money?

Mr. BALLOU. Yes, sir.

The CHAIRMAN. I am glad to have one man admit it.

Mr. BALLOU. I haven't heard any testimony that they haven't made any profit, because it would be foolish to assume that they are running this for pleasure.

The CHAIRMAN. If, in your judgment, we can manufacture paper as cheaply or cheaper than the Canadians can, and the removal of the tariff would not affect the price of the paper to the publisher, which means the selling price by the mills—I am inclined to agree with you on both propositions—what is the object of keeping the tariff on print paper at the expense of forbidding exportation of pulp wood which is most accessible to your mills?

Mr. BALLOU. The prohibiting of the pulp wood, of course, to our manufacturers and the removal of the tariff would be simply suicidal to the mills over here. I would go just halfway on that and say allow the importation of pulp from Canada and the free importation of wood, but not the manufactured product.

The CHAIRMAN. You think it would be about a fair and even stand-off if we could remove the duty on ground wood pulp in exchange for the removal of the restrictions on the exportation of pulp wood?

Mr. BALLOU. Yes, sir.

The CHAIRMAN. How about sulphite?

Mr. BALLOU. I think it would apply the same.

The CHAIRMAN. Take off the duty on sulphite?

Mr. BALLOU. Yes, sir.

Mr. RYAN. You don't think that would interfere with the American manufacturer?

Mr. BALLOU. No. The Canadian would be at a little disadvantage in the sulphite end of it. The fuel problem would be quite a problem on the sulphite end of it, whereas in ground wood it don't require any fuel.

The CHAIRMAN. What is the reason there is very little news print paper manufactured in the Fox River Valley?

Mr. BALLOU. Because the mills as originally built or that are now in existence in the Fox River Valley are not modern is one reason.

The more modern and larger machines have been established on water powers nearer the timber in the northern part of the State, and I think that the reason that the other grades are made here is practically on that account.

The CHAIRMAN. That is, there has been a greater development in machinery for the manufacture of news print paper than there has in machinery for the manufacture of other kinds of paper?

Mr. BALLOU. I think so.

The CHAIRMAN. Hence the old machines are relegated to the manufacture of other kinds of paper both on account of speed and size?

Mr. BALLOU. Yes. More particularly, perhaps of speed than any other one thing.

The CHAIRMAN. I asked Mr. Sensenbrenner about whether Mr. Hurlbut routed the pulp wood.

Mr. BALLOU. He never has, but we are now placing it in his hands, arranging for the coming crop that he will do it.

The CHAIRMAN. He is figuring closely on freight tariff?

Mr. BALLOU. Yes. He won't be able to do that to any great extent, because the lines reaching to the wood, the mills located on that line, you cannot change the rate because it has got to go over that line; but where there are connecting lines, he can have some influence, perhaps, in getting the best advantage out of it in that way.

The CHAIRMAN. If we should want some one to testify as to freight rates, he probably would be the best man?

Mr. BALLOU. I think he would. He is very familiar with all that data.

The CHAIRMAN. I mean as to particular mills from particular points?

Mr. BALLOU. Yes, sir.

The CHAIRMAN. If he is preparing to route the pulp-wood supply for next year, of course he will have all that down exactly?

Mr. BALLOU. Yes, sir; he will.

The CHAIRMAN. Does he operate for the Wisconsin River mills as well as the Fox River mills?

Mr. BALLOU. Yes; all of them.

The CHAIRMAN. He practically covers most of the mills in the State, as I recall?

Mr. BALLOU. Yes, sir; nearly all.

The CHAIRMAN. You haven't made any figures about prices?

Mr. BALLOU. No; I have not. I have not been in the business hardly long enough so that it would be of very much interest.

The CHAIRMAN. How long have you been in the business?

Mr. BALLOU. About twelve years. Until the last four or five years we were not manufacturing any print paper of any kind.

The CHAIRMAN. By the way, Mr. Sensenbrenner, can you tell us, or Mr. Ballou, either, whether the trend of prices of other papers has been somewhat similar to the trend of prices on news-print paper; because we are interested in the inquiry as to other papers just as much as we are on news-print paper?

Mr. SENSENBRENNER. Somewhat similar; yes, sir. Perhaps the variation has not been in the same degree as the news-print paper.

The CHAIRMAN. You are inclined to think that there was a reduction in the price of other papers down to 1896 or 1897, somewhere along there?

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. And then some increase of price since that time?

Mr. SENSENBRENNER. Yes, sir.

The CHAIRMAN. I wonder if we could get hold of the figures on some standard paper?

Mr. SENSENBRENNER. I am inclined to think we can prepare some figures for you on that point, Mr. Chairman.

Mr. CHAIRMAN. We would be very glad if you would.

Mr. SENSENBRENNER. I will do it; I presume I can get them to you by mail, can't I?

The CHAIRMAN. Yes. How about wrapping paper?

Mr. SENSENBRENNER. We make manila wrappings and have for quite a good many years, and perhaps can prepare a statement showing the range of prices over twenty-five years. I do not recall now how far back our history in the manufacture of book paper goes, but I think I can prepare some figures for you in that line also.

The CHAIRMAN. Have you anything to say on the Dean proposition?

Mr. BALLOU. No, sir.

The CHAIRMAN. It is a concession, you know, from us to allow anybody to testify to it?

Mr. BALLOU. I would go this far on that, Mr. Chairman, as to the result in case the Dean Consolidation, so called, was perfected, what result it would have on the publisher in regard to what he would have to pay for his paper. As to the detail of the general proposition, I am not very familiar with it, and would not care to go into it.

The CHAIRMAN. I suppose the effect upon the publisher will be very apparent if the consolidation goes through?

Mr. BALLOU. I think so.

The CHAIRMAN. If it does not go through, it does not make any difference?

Mr. BALLOU. I think it would be very apparent to him in a more steady price, and probably a less average price than it would be if it did not.

The CHAIRMAN. Of course, that it a matter that we leave in the main to the tender mercies of the——

Mr. BALLOU. Poor paper millers?

The CHAIRMAN. No; the Government represented by the Attorney-General.

Mr. BALLOU. It is in pretty good hands, I guess, so far as he is concerned.

The CHAIRMAN. If you testify before this committee on that subject, you are immune as to anything you testify.

Mr. BALLOU. I do not think I would lose any sleep either way about that.

The CHAIRMAN. There have been cases where gentlemen have been very anxious to testify.

Mr. BALLOU. Oh, yes.

The CHAIRMAN. In order to become immune.

Mr. BALLOU. I have no doubt of that.

The CHAIRMAN. As I understand the present situation in the paper business, it is almost unexampled so far as water power is concerned.

Mr. BALLOU. Yes; that is true, covering so large a scope of the territory at one time.

The CHAIRMAN. What is the proportionate amount of power now being used in the Fox River Valley by the paper mills?

Mr. BALLOU. I think 10 per cent.

The CHAIRMAN. That is a restriction made because of the low water?

Mr. BALLOU. Yes—that is, there is only 10 per cent being used—not a restriction of 10 per cent. There is a restriction of 90 per cent.

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PULP AND PAPER INVESTIGATION HEARINGS

SEPTEMBER 19, 1908

SELECT COMMITTEE OF HOUSE OF REPRESENTATIVES

JAMES R. MANN, Illinois, *Chairman*

JAMES M. MILLER, Kansas

HENRY T. BANNON, Ohio

WILLIAM H. STAFFORD, Wisconsin

THETUS W. SIMS, Tennessee

WILLIAM H. RYAN, New York

NO. 29

WASHINGTON

GOVERNMENT PRINTING OFFICE

1908

WOOD PULP, PRINT PAPER, ETC.

On September 19, 1908, the committee visited the mills of the Nekoosa-Edwards Paper Company at Nekoosa, Wis., the Nekoosa-Edwards Paper Company at Port Edwards, Wis., and the Grand Rapids Pulp and Paper Company mill, 4 miles north of Grand Rapids, Wis. Also the mill of the Consolidated Water Power and Paper Company at Grand Rapids, Wis.

GRAND RAPIDS, Wis., *September 20, 1908.*

STATEMENT OF THOMAS E. NASH, OF GRAND RAPIDS, WISCONSIN.

Examined by the CHAIRMAN:

The CHAIRMAN. Will you please give the stenographer your full name?

Mr. NASH. Thomas E. Nash.

The CHAIRMAN. And address?

Mr. NASH. Grand Rapids, Wis.

The CHAIRMAN. What paper mills are you connected with?

Mr. NASH. The Nekoosa-Edwards Company.

The CHAIRMAN. That is a consolidation of the John Edwards and the Nekoosa?

Mr. NASH. It is owned by the same stockholders largely, and the Northern Paper Company, which is a pulp-wood company.

The CHAIRMAN. The Northern Paper Company is not a manufacturing company at all?

Mr. NASH. No.

The CHAIRMAN. Will you tell us in your own way your views and knowledge in regard to the present and probable future available supply of pulp wood, particularly spruce and hemlock?

Mr. NASH. Of hemlock we have a large quantity in this State and the Upper Peninsula of Michigan, enough to last us a great many years. Of spruce there has been very little in the State of Wisconsin. There never were large forests, and of course they have been reduced almost entirely. There is considerable wood in Minnesota and the Upper Peninsula of Michigan available to us, and some in Ontario that can be made available shortly if it is made so that we are permitted to go into it. In fact, we are getting some from Ontario now.

The CHAIRMAN. That is, from the freehold lands?

Mr. NASH. Yes, I suppose so. It comes to us through a contractor.

The CHAIRMAN. Where do you receive it?

Mr. NASH. At Green Bay. It comes by boat from Port Arthur to Green Bay on contract, and is towed from Sault Ste. Marie to Long Tail Point. That is outside of Green Bay about 7 miles.

The CHAIRMAN. Port Arthur is on Lake Superior?

Mr. NASH. About 150 miles northeast of Duluth.

Mr. CHAIRMAN. These logs are towed?

Mr. NASH. No, those are boated from Port Arthur. From Sault Ste. Marie they are towed. From Port Arthur they are boated to Green Bay and from Sault Ste. Marie they are towed in rafts.

The CHAIRMAN. Why do you go so far west on the Canadian shore for Canadian wood; can't you get wood on the east shore of Lake Superior?

Mr. NASH. We don't designate it as the east shore. We designate it as the north shore. The Pigeon River Lumber Company is largely owned by the people in this vicinity and their manager is a stockholder of one of these mills, and we wrote to him and he got this wood at Port Arthur. That is how we happened to go up there for it. That was this past year.

The CHAIRMAN. Do you know how much spruce forest is tributary to Port Arthur?

Mr. NASH. There is a great deal of it, if you go directly west in the Lake of the Woods region. If you go north you get into the height of the land and it would only be made available by a new railroad. The height of land comes pretty close to Lake Superior.

The CHAIRMAN. All of the land north of that would either have to have railroads to bring the wood over the divide or else go north in the streams that go north?

Mr. NASH. Run into Hudson Bay; yes, sir.

The CHAIRMAN. Do you know anything about the water power of those streams?

Mr. NASH. Yes, some of them. There is one point of Lake Superior where the height of land runs 150 miles north. The Canadian Pacific Railroad follows the hog back with this exception. That is at Lake Nipigon.

The CHAIRMAN. Lake Nipigon drains into Lake Superior?

Mr. NASH. Yes. There is power in between the lake and the bay. My sons have been there and they can tell about it.

Mr. RYAN. What distance is it from Lake Nipigon to the Bay?

Mr. NASH. About 30 miles. It is about 90 miles to the north end of the lake.

The CHAIRMAN. Port Arthur is where the Canadian Pacific reaches the lake?

Mr. NASH. Yes, sir; at Thunder Bay.

The CHAIRMAN. You get a fair quantity of spruce wood that comes into the lake at Port Arthur?

Mr. NASH. Yes, sir.

The CHAIRMAN. Do you know where that is cut?

Mr. NASH. I think it is cut somewhere on the Canadian Northern Railroad out toward the boundary. It is shipped in there. The Pigeon River Lumber Company operate on the boundary directly north of there, and tow their logs up to Port Arthur and saw them there.

The CHAIRMAN. They tow their logs to Port Arthur?

Mr. NASH. Yes, sir. From the mouth of Pigeon River.

The CHAIRMAN. Is that low country around Lake Nipigon good forest?

Mr. NASH. Fairly good in spots; it is not solid.

The CHAIRMAN. It is filled with lakes?

Mr. NASH. Some lakes; yes, sir.

The CHAIRMAN. There seems to be more or less swamp in there.

Mr. NASH. Instead of being swampy it is a rocky, hilly country.

The CHAIRMAN. West of Thunder Bay?

Mr. NASH. So far as we could see from the railroad track, it is very rocky.

The CHAIRMAN. Is there very much spruce?

Mr. NASH. Scattered spruce. I think there is a good deal there. It is reported to be very heavily spruced in spots.

The CHAIRMAN. Do you know how it is east of Lake Nipigon? Do you know anything about that country?

Mr. NASH. No; I have never been there except to Michipicoten. I was up to Michipicoten and Magpie. There are scattered spots through there.

The CHAIRMAN. This wood that you get from the Soo, do you know where that comes from?

Mr. NASH. I think it is cut some on the south shore and some over on the Canadian side on freehold land.

The CHAIRMAN. Are you familiar with the forestry conditions east of the Soo, north of or around Georgian Bay?

Mr. NASH. Only in the most general way.

The CHAIRMAN. What leads you to believe that the supply of hemlock in Michigan and Wisconsin which can be used by the Wisconsin mills is practically inexhaustible?

Mr. NASH. I would not put it practically inexhaustible. I would say in considerable quantities, but not practically inexhaustible, Mr. Chairman.

The CHAIRMAN. I say, for the use of the Wisconsin mills. You think it is not practically inexhaustible?

Mr. NASH. I know it is not.

The CHAIRMAN. At the present rate of the use of hemlock by the Wisconsin mills, will the hemlock in Wisconsin and the north peninsula supply the demand for many years?

Mr. NASH. Yes, sir.

The CHAIRMAN. There is a tendency in the mills here now, isn't there, to increase the proportion of sulphite manufactured and decrease the proportion of ground pulp manufactured?

Mr. NASH. That is where they are changing their grades of paper. They increase the hemlock and decrease the spruce.

The CHAIRMAN. That would increase the drain upon the hemlock forests?

Mr. NASH. Yes; naturally.

The CHAIRMAN. Have you, or anyone, so far as you know, an estimate of the amount of standing hemlock in this State?

Mr. NASH. I have seen the Government estimate. I haven't got any myself. I don't know whether my son has or not.

The CHAIRMAN. If you have only the Government estimate that is not of any value.

Mr. NASH. I don't think we have any.

The CHAIRMAN. What have you got that would indicate anything in reference to the hemlock?

Mr. GUY NASH. We have estimates of the cut of lumber. That would not give the standing timber. I mean the amount that is cut each year.

The CHAIRMAN. We would like to have, if we can get it, an estimate of the cut.

Mr. NASH. My son has got that. He has got the figures.

The CHAIRMAN. Do you know what quantity of spruce wood is probably used in the Wisconsin River Valley annually?

Mr. NASH. I could make up a rough estimate. I know what the Northern Paper Company buys for four mills and the other I would have to estimate it.

The CHAIRMAN. What mills does the Northern Paper Company buy for?

Mr. NASH. Grand Rapids Paper and Pulp Company, Centralia Pulp and Water Power Company, John Edwards Manufacturing Company, Nekoosa Paper Company.

The CHAIRMAN. The Consolidated gets its pulp wood through the—

Mr. NASH. Wisconsin Pulp and Paper Company.

The CHAIRMAN. I suppose the Stevens Point mill gets its wood through the same source?

Mr. NASH. Yes, sir.

The CHAIRMAN. How is the one at Ladysmith; where do they get their wood from?

Mr. NASH. The same.

The CHAIRMAN. Mr. Ballou is manager?

Mr. NASH. Yes, sir.

The CHAIRMAN. How about the one at Rhinelander?

Mr. NASH. That is the Wisconsin Pulp Wood Company. They were last winter.

The CHAIRMAN. They supply most of the mills?

Mr. NASH. Yes. We supply only four mills. They supply most of them.

The CHAIRMAN. They get most of their spruce wood from Minnesota?

Mr. NASH. Yes, sir.

The CHAIRMAN. Do you get most of yours from Minnesota?

Mr. NASH. Yes, sir.

The CHAIRMAN. How do you arrange for it? Do you contract for it?

Mr. NASH. We contract with producers, men that are loggers over there, and get out these ties and telegraph poles and cedar posts. Spruce is mixed in, and they get out some of their own and buy from settlers and loggers—get regular contracts.

The CHAIRMAN. You make a contract with them usually based on f. o. b. at Duluth?

Mr. NASH. Yes.

The CHAIRMAN. So far you find that they are able to furnish you with spruce wood?

Mr. NASH. Abundantly.

The CHAIRMAN. You do not yourself go back into the forest to any extent to ascertain what is the probable future source of supply?

Mr. NASH. No; except in a general way.

The CHAIRMAN. What is the spruce wood being delivered in the mills for now?

Mr. NASH. Delivered at the mills?

The CHAIRMAN. Yes.

Mr. NASH. I think about \$10.50 or \$10.60. I would have to look up the contracts. What are you billing that for?

The BOOKKEEPER. \$11.25.

Mr. NASH. That includes office expenses.

The CHAIRMAN. That would be the same rate as the Wisconsin pulp?

Mr. NASH. About the same.

The CHAIRMAN. Theirs is \$11 f. o. b. on the cars at the mill.

Mr. NASH. Yes.

The CHAIRMAN. Over in the Fox River Valley?

Mr. NASH. We charge a little higher, so that they will come out even at the end of the year. There may be some money to divide out of that.

The CHAIRMAN. They figure over there it would cost them \$11.25 unloaded. Is that what your figure is?

Mr. SIMON. That is about what it costs here.

The CHAIRMAN. The hemlock—what does that cost?

Mr. NASH. The rates vary on that. From some places it is 3 cents and some 4½.

The CHAIRMAN. Ten years ago what did spruce cost?

Mr. NASH. Do you want that at the mill or f. o. b. shipping point?

The CHAIRMAN. I do not care which. Ten years ago according to the testimony of Mr. Sensenbrenner, and I simply refer to that because I have it most convenient, spruce wood cost the Kimberly-Clark Company at their mill at Quinnesec f. o. b. cars and river at mill \$3.70 a cord.

Mr. NASH. I guess they were close to the timber. It costs us more than that, I think. We will have the exact figures.

The CHAIRMAN. Nineteen hundred and seven spruce cost that mill \$8.80 a cord. They are located up nearer to the Michigan supply?

Mr. NASH. Yes, sir.

The CHAIRMAN. They have some spruce up on the Michigan Peninsula, haven't they?

Mr. NASH. Yes. There has been good spruce there and there is some left.

The CHAIRMAN. That is where this mill gets its spruce from?

Mr. NASH. Yes; they get it at the lower mills.

The CHAIRMAN. But there is a great difference between \$3.70 and \$11.25?

Mr. NASH. I don't think ours will show that difference. In 1898 spruce cost us \$5.50 f. o. b. mills.

The CHAIRMAN. It would now cost you \$11?

Mr. NASH. Yes, sir.

The CHAIRMAN. Doesn't that lead you to think that you might have a great increase in the cost of hemlock in the next ten years?

Mr. NASH. Unquestionably. The price is going up without a doubt.

Mr. RYAN. Mr. Nash, that spruce that you obtained in 1898 at \$5.50, where did that come from?

Mr. NASH. Locally. We did not go as far for it as Minnesota. We bought on a lower freight rate, some on the Wisconsin Valley road and some on the Soo, where our freight rates were less than they are now.

Mr. RYAN. That supply has become exhausted?

Mr. NASH. Yes, practically. We get a little, but not much.

The CHAIRMAN. When these mills were constructed along the Wisconsin River at first, did they figure upon going to Minnesota for spruce wood?

Mr. NASH. I think not. We thought there was enough in Michigan and Wisconsin to supply us many years.

The CHAIRMAN. To supply you with spruce for many years?

Mr. NASH. Yes, sir.

The CHAIRMAN. You have learned better?

Mr. NASH. Yes, sir.

The CHAIRMAN. You now think there is plenty of hemlock to supply you for many years?

Mr. NASH. Yes, sir.

The CHAIRMAN. Supposing you should learn better in the same way in the next ten years that the supply of hemlock would not hold out, what would happen to the mills here?

Mr. NASH. I think the sheriff would have a job unless we found other sources or could get higher prices for our paper. Instead of going to Minnesota, we could go farther west or go to Canada and get a higher price for our paper.

The CHAIRMAN. Do you think you would have to have a higher price for your paper if you could get spruce wood from Ontario?

Mr. NASH. I think we would; yes, sir.

The CHAIRMAN. Why?

Mr. NASH. They wouldn't supply us as cheaply as our own men have been doing.

The CHAIRMAN. What effect would it have, in your judgment, upon the mills on the one side and the owners of forests on the other in the United States if the tariff duty were taken off of lumber and wood pulp with the right of free exportation of wood or pulp wood from the Crown lands of Ontario?

Mr. NASH. The immediate effect might be to disturb things. In the end I think it would be all right.

The CHAIRMAN. You think there is a natural supply of spruce wood on the north shore of Lake Superior which might profitably be converted into a finished product through the water power of these and other streams in Wisconsin?

Mr. NASH. Some of that is most accessible. The other would have probably to be converted on their water powers up there after they got railroads to them.

The CHAIRMAN. Bring spruce wood from Ontario; of course, you can not go very far back of the railroads.

Mr. NASH. No, sir; you can not go more than anywhere from 12 to 50 miles. The height of land ranges from 12 to 50 miles, except on Nipigon. That is an exception.

The CHAIRMAN. If proper conservation methods were adopted in the forests of Wisconsin and Minnesota, would it be possible to continue the supply of those woods here by the new growth?

Mr. NASH. No; I do not think it would grow as fast as it is being used.

The CHAIRMAN. Is this land upon which hemlock grows suitable for agricultural purposes?

Mr. NASH. Most of it. Spruce is just the reverse. Spruce is swamp land. Hemlock in this country grows as a rule mixed with hard woods, and the soil is generally quite fair.

The CHAIRMAN. This country around where we are now, Grand Rapids, was that formerly heavy forest?

Mr. NASH. There was some pine growing along the river. On the sand barrens there was very little timber. West of here there is a great deal of pine and hard wood, after you get 3 miles from the river.

The CHAIRMAN. South of here there was very little timber?

Mr. NASH. Very little. That was sand barrens.

The CHAIRMAN. I should think pine would cover that.

Mr. NASH. It is too poor to grow pine. Jack pine grows on it yet.

The CHAIRMAN. I never heard before of any land that was too poor to grow pine.

Mr. NASH. I can show you some, in an automobile, in half an hour.

The CHAIRMAN. The poorest land I ever saw was down in Florida, and it grows the finest pine known.

Mr. NASH. They have moisture. It is close to the ocean. It is not hot and dry. There is more moisture.

The CHAIRMAN. Yes; there is more moisture there.

Mr. NASH. This sand gets dry and very hot.

The CHAIRMAN. What grew on these sandy barrens?

Mr. NASH. Jack pine and scrub oak.

The CHAIRMAN. How do your logs come down from Duluth?

Mr. NASH. By rail. Do you mean what railroad?

The CHAIRMAN. Yes.

Mr. NASH. We have three roads: Chicago, St. Paul, Minneapolis and Omaha, Wisconsin Central and Chicago, Milwaukee and St. Paul.

The CHAIRMAN. Do you remember what the freight rate is?

Mr. NASH. Eight cents, I think, it is from Duluth.

The CHAIRMAN. Eight cents from Duluth to Grand Rapids?

Mr. NASH. Yes, sir.

The CHAIRMAN. I suppose all the other points get the same as Grand Rapids?

Mr. NASH. Yes. I think it is the same to the Fox River.

The CHAIRMAN. How about the timber supply farther West?

Mr. NASH. There is a great deal of that that is not at present available.

The CHAIRMAN. The spruce wood that you get now from Minnesota, I suppose, grows in the northeastern portion of that State?

Mr. NASH. North central to the northeast. We get some from that Bemidji country.

The CHAIRMAN. Is there any spruce wood up in the Leech Lake territory?

Mr. NASH. Yes; a great deal.

The CHAIRMAN. Going west from that, where do we first strike any good forests of spruce?

Mr. NASH. The first I know of is in western Montana and Idaho, and through Idaho and Washington.

The CHAIRMAN. That is a good ways from your mills?

Mr. NASH. Yes.

The CHAIRMAN. Won't the freight rate be practically prohibitory on spruce wood for a long period of years?

Mr. NASH. It will depend upon what the railroads want to do and the price of paper.

The CHAIRMAN. I mean where are you going to haul wood for that distance for any series of years. Wouldn't it mean that it would be so expensive that new mills would be established out there for the west, and for the eastern portion of the country mills would be established in Canada unless you have a prohibitory tariff?

Mr. NASH. That would be the tendency, but we should try to offset that by saying that they would have to pay the freight back on the paper. Unless you had a prohibitive duty, of course, the Canadian would come in with their paper. They are coming in now, as I understand it.

The CHAIRMAN. Do you believe that it is practical to run the paper mills in this valley with spruce wood brought by rail from the western part of Montana and Idaho and Washington and Oregon?

Mr. NASH. Under present circumstances, no, sir.

The CHAIRMAN. Do they have large spruce forests out in Oregon and Montana?

Mr. NASH. Yes, sir.

The CHAIRMAN. Is it good spruce?

Mr. NASH. Fine.

The CHAIRMAN. How far south does that spruce run along the Rocky Mountains?

Mr. NASH. There is some in Colorado as far south as mid-Colorado, and some in Wyoming.

The CHAIRMAN. Isn't it very expensive to handle these logs up in the mountains?

Mr. NASH. Yes; it is prohibitive now. If we got the timber for nothing, we couldn't handle it under present circumstances. The timber is there, but not available.

The CHAIRMAN. What kind of spruce makes the best pulp?

Mr. NASH. White spruce, of course, makes the best pulp that I know anything about.

The CHAIRMAN. That has the least resinous substance in it?

Mr. NASH. Yes; and fewer black knots. It makes a nicer pulp and nicer paper.

The CHAIRMAN. Is that what you get from Minnesota, white spruce?

Mr. NASH. Yes.

The CHAIRMAN. Is that what you had in Wisconsin largely?

Mr. NASH. No; some of it was black swamp spruce. It grows larger in Minnesota and a little higher.

The CHAIRMAN. What do they have out in the Rockies?

Mr. NASH. They have white spruce and white fir. I think that is a good paper wood.

The CHAIRMAN. They have several kinds of spruce out there, haven't they?

Mr. NASH. Yes. I was looking for the one kind when I was out there. I didn't pay any attention to the others.

The CHAIRMAN. Suppose you could get good spruce pulp wood from the north shore of Lake Superior and Ontario from the Crown lands on even terms with the citizens of Ontario, could you afford to manufacture wood pulp or ground pulp in free competition with the Canadian manufacturers?

Mr. NASH. That would be a very close call.

Mr. RYAN. For the American market?

The CHAIRMAN. Yes.

Mr. NASH. It would be a very close call. I don't know that we could do it under the very best circumstances. I think we would come very near doing it.

The CHAIRMAN. Which would be better for the paper business, to reach the point where spruce woods are so expensive to the Wisconsin manufacturers that they could not afford to use spruce wood or to get spruce wood from Ontario and compete with the people who might endeavor to manufacture wood pulp in Ontario?

Mr. NASH. In my judgment, the manufacturer has got to look for cheap raw material at any hazard. He may be driven out after he gets it, but his one object is to get the cheapest raw material he can.

The CHAIRMAN. What other uses could be made of the water power in the Wisconsin valleys that would absorb all the power except paper mills?

Mr. NASH. I don't know of a thing at present.

The CHAIRMAN. You have good power, I take it?

Mr. NASH. We have first-class power.

The CHAIRMAN. Not unreasonably expensive in any way?

Mr. NASH. No; it is very cheap as powers go.

The CHAIRMAN. The wood that you now get from the north shore comes around by boat partly from Port Arthur and part through the Soo—

Mr. NASH. That from the Soo is towed down in rafts. The other comes by boat. Both come from the Sault Ste. Marie down through Lake Michigan.

The CHAIRMAN. To Green Bay?

Mr. NASH. Seven miles from Green Bay, Long Tail Point; there are docks there for unloading.

The CHAIRMAN. It is farther to reach you than it is in the Fox River?

Mr. NASH. Yes; by nearly a hundred miles.

The CHAIRMAN. When it gets at the head of Green Bay it is put on cars?

Mr. NASH. Yes.

The CHAIRMAN. This that you raft down, is that rafted down to Green Bay?

Mr. NASH. To Long Tail Point.

The CHAIRMAN. In the same way?

Mr. NASH. Yes, sir.

The CHAIRMAN. Through the lake?

Mr. NASH. Yes, sir.

The CHAIRMAN. I did not suppose they would allow any rafts to go down through the locks at the Soo?

Mr. NASH. They untie the booms at the head of the rapids and catch the timber again in the main river. It doesn't come through the locks.

The CHAIRMAN. It comes down through the Straits of Mackinac?

Mr. NASH. Yes. It is towed through there. There is plenty of room there.

The CHAIRMAN. How much pulp wood do you get that way?

Mr. NASH. Our contract was 10,000 cords a year.

The CHAIRMAN. That covers both places?

Mr. NASH. No; that is the one contract. The other we bought 5,000 cords and we got about four.

The CHAIRMAN. You are all loaded up with pulp wood at present, I believe?

Mr. NASH. Yes, sir.

The CHAIRMAN. How much of a supply has the Nekoosa mill on hand?

Mr. NASH. Certainly more than a year.

The CHAIRMAN. I suppose, when you make contracts this fall, you won't want to buy quite as much?

Mr. NASH. I don't think we will have to buy any this fall; we have enough inside to carry us over. What we do buy we will expect to get a little less.

The CHAIRMAN. You would not be willing to pay \$11 f. o. b. cars here for spruce wood for next year?

Mr. NASH. No.

The CHAIRMAN. Are these forests out in Idaho and Montana extensive enough to last long when they get at them?

Mr. NASH. Oh, yes. That supply I should say for the present mills is inexhaustible. That is a moist country and can keep them going forever. It grows faster than in this dry cold climate of ours.

The CHAIRMAN. How long does it take a forest to reproduce here?

Mr. NASH. I couldn't say.

The CHAIRMAN. Forest conservation has never been practiced in this State, I take it.

Mr. NASH. No; just starting in now, the State is.

The CHAIRMAN. Do you get any wood of your own here?

Mr. NASH. Hemlock; yes, sir. And balsam and tamarack.

The CHAIRMAN. You use hemlock and balsam and tamarack all in your sulphite mills?

Mr. NASH. Yes, sir.

The CHAIRMAN. Do you take it as it comes?

Mr. NASH. Yes. We clean up the land as we go, on those timbers.

The CHAIRMAN. Do you run in pulp wood as it comes, or do you have a limited quantity of tamarack?

Mr. NASH. We separate it. Tamarack has not been used very extensively. It is a harsher wood and has to be treated differently. Balsam we can run in with the other.

The CHAIRMAN. If there is not too much of it?

Mr. NASH. It doesn't make any difference with us on fiber papers.

The CHAIRMAN. I should suppose balsam would have too much of the resinous substances?

Mr. NASH. We take care of that.

The CHAIRMAN. You strip the land?

Mr. NASH. Yes.

The CHAIRMAN. What becomes of it?

Mr. NASH. Undoubtedly it will go to farmers. We haven't sold off any yet, because we don't want any settlers starting fresh fires in our vicinity.

The CHAIRMAN. How much timber land do you own or control?

Mr. NASH. We own about 40,000 acres.

The CHAIRMAN. That is up near Ashland?

Mr. NASH. Yes; about 40 miles south of Ashland.

The CHAIRMAN. Is that virgin forest up there?

Mr. NASH. What white pine there was is supposed to have been cut off near the streams. There is very little white pine left. In fact, there never was much on this tract of ours, so that practically it is virgin forest.

The CHAIRMAN. If we should go up to view that, would we get a fair sample of the Wisconsin forests?

Mr. NASH. I think so.

The CHAIRMAN. What percentage of that is hemlock, in your judgment?

Mr. NASH. About 60 per cent.

The CHAIRMAN. Is that about the percentage that hemlock would run in Wisconsin?

Mr. NASH. I think that is a little large. We selected it especially for hemlock. I think it is a larger percentage than usual. Forty or 50 per cent of hemlock is a good stand.

The CHAIRMAN. The Government is now endeavoring to gather information as completely as possible of all forests owned in tracts of over 50,000. Suppose that should disclose the fact that you did not have forests enough up here to supply you, what would you be thinking about doing then?

Mr. NASH. I would hate to let my competitors know.

The CHAIRMAN. In a general way. They would know.

Mr. NASH. Yes. Well, I should, of course, do as any other business man would do; I would see if there was not some way I could get a supply and keep agoing; if not, I should think I would have to convert the mill to other uses. If we could not get a supply there would be no other course left.

The CHAIRMAN. Has this jack pine been cut off these barrens down here?

Mr. NASH. Some is cut off for cord wood and such purposes.

The CHAIRMAN. Does that grow up rapidly; does it reproduce quickly?

Mr. NASH. No; it never amounts to much. It is small, scrubby stuff. It is only good for fuel wood, temporary fence posts, and they occasionally use it for box boards.

The CHAIRMAN. Might they not use that for wrapping papers and things of that sort?

Mr. NASH. Yes; it might be put to that use.

Mr. RYAN. What opinion have you, if any, in regard to the Government regulating the trade relations on wood pulp or paper, or anything of that character, between Canada and the United States?

Mr. NASH. In what respect?

Mr. RYAN. In the event of tariff legislation being enacted by the Government what opinion do you have as to what would be the best

for the American industries or the American people in general? Take your own case, for instance, as a paper manufacturer?

Mr. NASH. Our own case is not quite typical, from the fact that we use so much larger percentage of hemlock and balsam and tamarack than we do of spruce, and we could get along with what perhaps would not do for other men. In our own case, I think if we had free access to the forests of Ontario that we would allow them to bring in their pulp free, and it would put us both on an even keel, so far as that is concerned. If we are going to have any tariff on the chemicals and raw material we should have something to offset that, a countervailing duty, which I understand is about 15 per cent, and that is little enough.

The CHAIRMAN. Do you remember whether you have looked that up since the last Canadian tariff was in operation?

Mr. NASH. No; I have not done so; I don't know what that is.

The CHAIRMAN. Do you import some sulphite?

Mr. NASH. We do not.

The CHAIRMAN. You come in competition with imported sulphite, imported from Europe?

Mr. NASH. One of our mills does, but I am not familiar with the details of that; that is, I do not look after the details of the Port Edwards Paper Company, so I could not testify on that point.

The CHAIRMAN. You have given special attention, as I understand, to the matter of supply of pulp wood?

Mr. NASH. Yes, sir.

The CHAIRMAN. Forestry conditions?

Mr. NASH. Yes, sir.

The CHAIRMAN. Believing, I suppose, that the first thing to do in the manufacturing business is to get the material?

Mr. NASH. The very first thing is to get it and next to get it as cheap as you can.

The CHAIRMAN. You can not commence without material, and you can not continue unless you get it cheaply?

Mr. NASH. That is right. That is stated as pat as it could be put.

The CHAIRMAN. What about these forests in Minnesota; do they grow large spruce timber?

Mr. NASH. You find very large trees mixed in with pine and other woods. Where it grows in pure spruce stands it is generally quite small, ranging from 6 to 14 inches on a stump, but quite small.

The CHAIRMAN. Is that virgin forest?

Mr. NASH. Yes, sir.

The CHAIRMAN. That is as large as it would ever get?

Mr. NASH. No; I don't think it is as large as it would ever get. It is as large as we find it now. Spruce is of young growth in the low, swampy country.

The CHAIRMAN. Has that country been cut over?

Mr. NASH. No.

The CHAIRMAN. How old are these forests?

Mr. NASH. Well, probably seventy-five to a hundred years.

The CHAIRMAN. What was there before?

Mr. NASH. Lakes or low land. The spruce came on as they dried off. Maybe if I put it two hundred years I would be nearer right.

The CHAIRMAN. Whether it is seventy-five or two hundred years doesn't cut much figure?

Mr. NASH. No.

The CHAIRMAN. Your theory, then, is that these lakes have been drying off?

Mr. NASH. Oh, yes.

The CHAIRMAN. In the last fifty or a hundred or two hundred years?

Mr. NASH. Yes, sir.

The CHAIRMAN. What makes you think that; upon what do you base that?

Mr. NASH. There is every evidence of it from the old stumps and river banks and things of that sort.

The CHAIRMAN. If that should keep on the whole country would dry up before long.

Mr. NASH. Not for a long time. It might if it kept on.

The CHAIRMAN. It is drying up pretty fast right here now?

Mr. NASH. Yes.

The CHAIRMAN. Do you think that these spruce forests up there have grown there since that territory became a part of the United States?

Mr. NASH. Oh, no. That has always been the United States—not always—how many years?

The CHAIRMAN. It is part of the Northwest Territory.

Mr. NASH. I think they were growing there long before that, some of the spruce trees, but the great growth I think has been in the last hundred years—all of these smaller spruce that stand to-day.

The CHAIRMAN. Is that land up there good for anything else except to grow forests?

Mr. NASH. Most of it is worthless for other purposes.

The CHAIRMAN. Does it belong to private individuals in the main?

Mr. NASH. Yes, sir. The State has a great deal of it. The State owns a lot of land up there.

The CHAIRMAN. And the State has adopted or is adopting forest conservation methods?

Mr. NASH. Yes.

The CHAIRMAN. They have a very good forester up there, haven't they?

Mr. NASH. I understand so.

The CHAIRMAN. With proper methods, that would tend very greatly to supply you and the Minnesota mills with spruce in the future?

Mr. NASH. If it could be held for that purpose, it would supply us for many years. Of course, the lumbermen are after it all the time and we have got to compete with them.

The CHAIRMAN. Up there now you take the spruce where they cut ties, telegraph poles, and things of that sort?

Mr. NASH. Yes; we take it from the jobbers. The lumbermen can not very well compete with us, except where it is mixed with pine.

The CHAIRMAN. What is the character of the forests where you get the ties, telegraph poles, and pulp wood?

Mr. NASH. That is low ground and has a good deal of cedar in it, what we call cedar swamp.

The CHAIRMAN. That is arbor vitæ?

Mr. NASH. Yes.

The CHAIRMAN. White cedar?

Mr. NASH. Yes.

The CHAIRMAN. Mr. Norris, would you like to ask Mr. Nash any questions?

Mr. NORRIS. No.

The CHAIRMAN. Mr. Ryan, have you anything?

Mr. RYAN. No.

The CHAIRMAN. Is there anything you want to call attention to, Mr. Steele?

Mr. STEELE. No.

The CHAIRMAN. Is there anything else you have in your mind?

Mr. NASH. No.

The CHAIRMAN. We are very much obliged to you.

Mr. NASH. Thank you. I am much obliged to you, gentlemen.

STATEMENT OF MR. GUY NASH.

Sworn and examined by the CHAIRMAN:

The CHAIRMAN. What is your position or occupation?

Mr. GUY NASH. I have charge of the timber lands of the Nekoosa Edwards Company.

The CHAIRMAN. Tell us about your timber lands.

Mr. GUY NASH. They have the main bulk of their hemlock and hardwood lands in northern Wisconsin. They also have some spruce lands on northern Minnesota.

The CHAIRMAN. Do you get much of your present supply of wood from your own land, or do you buy most of it?

Mr. GUY NASH. We buy mostly.

The CHAIRMAN. In the endeavor to save yours?

Mr. GUY NASH. To conserve our own timber as long as possible.

The CHAIRMAN. What is the character of the hemlock lands in Wisconsin, your hemlock lands in Wisconsin?

Mr. GUY NASH. Of the soil, do you mean?

The CHAIRMAN. Of the soil and the forest.

Mr. GUY NASH. The stand of hemlock is almost invariably mixed with other timber, hardwood for the most part. The soil must be fairly rich in order for hemlock to grow at all; and the stand is not usually heavy, nothing to compare with the white pine of the olden days.

The CHAIRMAN. Hemlock does not grow as thick?

Mr. GUY NASH. It grows much thicker, but much shorter. Or not much thicker; but very often white pine was as thick as it could stand on the land. It seldom grows as thick as that. It is invariably shorter than the white pine, so that the stand is much less per acre.

The CHAIRMAN. It doesn't grow as large?

Mr. GUY NASH. No.

The CHAIRMAN. It dies younger, doesn't it?

Mr. GUY NASH. Yes.

The CHAIRMAN. It rots at a much earlier age?

Mr. GUY NASH. Yes.

The CHAIRMAN. What kind of hard woods do you get mixed in with it?

Mr. GUY NASH. On our lands birch is the predominating hard wood.

The CHAIRMAN. Paper-leaf birch or white birch?

Mr. GUY NASH. Red birch.

The CHAIRMAN. What is that, the river birch?

Mr. GUY NASH. No. That is what we call here the water birch. It is a large birch and very favorable for lumber. It is used for interior finish and furniture and such purposes as that.

The CHAIRMAN. Don't you get any paper-leaf birch as far down as this?

Mr. GUY NASH. I don't exactly know what you mean.

The CHAIRMAN. Canoe-bark birch.

Mr. GUY NASH. We have very little of that. We scarcely ever run across one.

The CHAIRMAN. Paper-leaf birch is the kind that the bark peels off from.

Mr. GUY NASH. We have little of that, but not much. There is more of such as we saw yesterday.

The CHAIRMAN. That is white birch?

Mr. GUY NASH. Yes, sir.

The CHAIRMAN. Paper-leaf birch is the kind that grows in Minnesota. That is the kind they make Indian canoes from.

Mr. GUY NASH. We don't produce many canoes up there.

The CHAIRMAN. What are the kinds of hard wood that you have?

Mr. GUY NASH. Besides basswood, we have elm, mainly soft elm, and a small amount of oak, and some ash, more ash than oak—very little oak, indeed.

The CHAIRMAN. What do you mean by the soft elm, water elm, slippery elm?

Mr. GUY NASH. Not slippery elm. It is a distinct variety apart from the rock elm. It is used for lumber; furniture factories are buying it now as a substitute for oak, which is too expensive.

The CHAIRMAN. Where you cut your forest up there—I think your father said you cut it clean?

Mr. GUY NASH. Yes. We only leave such stuff as is suitable for cord wood only.

The CHAIRMAN. What grows up on it after you cut it over?

Mr. GUY NASH. Brush, or if it was left for a sufficient length of time the reproduction probably would be poplar.

The CHAIRMAN. What kind of brush grows on it?

Mr. GUY NASH. Same as the hard woods that have been previously growing there—soft maple, hard maple, and some birch and elm, and basswood, also.

The CHAIRMAN. You are familiar with the forest in Minnesota, too?

Mr. GUY NASH. Somewhat so, in a general way. I have not been up there myself as much as I have in Wisconsin forests.

The CHAIRMAN. Where are your spruce lands in Minnesota?

Mr. GUY NASH. Those I am not familiar with. They were purchased while I was holding another position. In central Minnesota.

The CHAIRMAN. How much land do you have up there?

Mr. GUY NASH. About 800 acres.

The CHAIRMAN. Up here in Wisconsin, about how much?

Mr. GUY NASH. About 45,000.

The CHAIRMAN. Have you been up in the Canadian forests?

Mr. GUY NASH. Not very much. I have been up in the northeastern end of Lake Superior, where the Clergues have their works, and in the Nipigon country.

Mr. THOMAS E. NASH. You have been on the north shore of Lake Nipigon, haven't you?

Mr. GUY NASH. I said Nipigon country.

The CHAIRMAN. What kind of forests do they have on the east shore of the lake?

Mr. GUY NASH. As far as I saw them, the timber seemed to be almost entirely spruce in scattered stands.

The CHAIRMAN. What would be between those scattered stands?

Mr. GUY NASH. Scrubby timber of the Christmas-tree type.

The CHAIRMAN. Have you been farther east or north?

Mr. GUY NASH. No farther north than the north shore of Lake Nipigon and no farther east than the Georgian Bay country.

The CHAIRMAN. Is the Georgian Bay country, Nipissing Lake country, etc., covered with spruce forests?

Mr. GUY NASH. In the Georgian Bay country I was never inland. Along the shores of the lake you see spruce scattered along all over, and my understanding is that the Lake Nipissing country is timbered with spruce. How heavily I do not know.

The CHAIRMAN. You could very easily get spruce from the Georgian Bay country here?

Mr. GUY NASH. Oh, yes.

The CHAIRMAN. That is, the transportation would be comparatively simple if you had a good port over there, good harbor facilities?

Mr. GUY NASH. Yes.

The CHAIRMAN. Are you familiar with the spruce lands out West?

Mr. GUY NASH. Somewhat so.

The CHAIRMAN. What about them?

Mr. GUY NASH. There is no doubt there is a great deal of spruce out there, and I do not think that there is any question but what it would be entirely suitable for paper making, and there is also other timber out there, which, to the best of my belief, would also be suitable for paper making, notably the white fir.

The CHAIRMAN. As I recollect, I may be mistaken, the Department of Agriculture recommends that white fir can be substituted for spruce.

Mr. GUY NASH. I had understood that they had made some investigations as to a substitute in the sulphite process for spruce. I have not seen their recommendations. They have hemlock on the coast also, which seems to be very similar to our hemlock here, except as to size, and that probably could also be substituted for our hemlock here.

The CHAIRMAN. When you speak of the fir out there, do you refer to what they call the Oregon fir?

Mr. GUY NASH. No. The Oregon fir I am not familiar with. I was never in the Oregon country.

The CHAIRMAN. The Oregon fir is largely the great timber out there that comes to us. We get large quantities of it.

Mr. GUY NASH. As I understand it, the Oregon fir is more like Norway pine in this country.

The CHAIRMAN. They substitute it in the market for white pine.

Mr. GUY NASH. The nomenclature of the timbers out on the coast makes it difficult for a person going in there strange to get them straight. It is different in the Montana and Idaho country than what it is in the western Washington district. For instance, their larch out there is, so far as I was able to ascertain, precisely the same as our tamarack.

The CHAIRMAN. Have your tamarack forests here died out any?

Mr. GUY NASH. No.

The CHAIRMAN. What have you to say as to the probable future supply of spruce wood for the Wisconsin mills?

Mr. GUY NASH. I believe that there is a sufficient supply of spruce to last them for a good many years if it can be made accessible, and it is likely to be made accessible as the needs of the mills demand. It is getting farther and farther away all the time, which would mean that the cost would be greater.

The CHAIRMAN. Of course, the furnishing of pulp wood is merely incidental so far as cutting the main forests are concerned, merely incidental to lumbering purposes, I take it?

Mr. GUY NASH. That is not entirely true. Both in past times in the north peninsula of Michigan and at the present time in Minnesota there are operators who devote a very large part of their attention to getting out the spruce wood.

The CHAIRMAN. Do they get into the large forest, heavy timber?

Mr. GUY NASH. The spruce does not ordinarily grow in very large bodies and always mixed with other material, all of which they must clean up as they go along.

The CHAIRMAN. I think we will have to go and examine some of these spruce forests.

Mr. GUY NASH. You won't find a spruce forest. You will find scattered bodies of spruce.

The CHAIRMAN. We had the testimony of an eminent man to the effect that there was a forest 800 miles long and 150 miles wide of spruce in Ontario. He gives this testimony from his personal knowledge.

Mr. GUY NASH. He did not say it was in Minnesota or Michigan or Wisconsin.

The CHAIRMAN. In Canada.

Mr. GUY NASH. I have heard of similar forests to that in Ontario.

The CHAIRMAN. This forest that you have up in Wisconsin—what do you call the name of the town?

Mr. GUY NASH. Shanagolden.

The CHAIRMAN. That is a typical Wisconsin hemlock forest?

Mr. GUY NASH. I think so.

The CHAIRMAN. Virgin forest practically?

Mr. GUY NASH. Well, you know that another Congressman defined a virgin forest as one where the hand of man never set foot. That would not apply to these forests, because large pine, which was scattered through there, has been cut out.

The CHAIRMAN. You say the large pine has been cut out. That would mean they would not go through and take just an occasional tree, would they?

Mr. GUY NASH. That was the nature of most of the pine in that country. It was a tree here and there mixed in with hard woods and

hemlock and growing that way on that rich soil; the trees were very large and tall and the lumber desirable, and they could afford to log more scattered timber of that nature, because the resulting lumber was of such high quality.

The CHAIRMAN. That has been taken out?

Mr. GUY NASH. Yes, sir.

The CHAIRMAN. And except for that it is practically a virgin forest?

Mr. GUY NASH. Yes, sir.

The CHAIRMAN. If we went up there we would see the conditions which prevail in the Wisconsin hemlock forests?

Mr. GUY NASH. Yes, sir.

The CHAIRMAN. Have you anything else that you wish to state?

Mr. GUY NASH. I have a pamphlet of the State of Minnesota here that I think might be interesting.

The CHAIRMAN. We would like to have it.

Mr. GUY NASH. There are some pictures of our works.

Mr. RYAN. Have you got good shipping facilities from your timber lands in Minnesota and Wisconsin?

Mr. GUY NASH. As to Wisconsin, yes. As I say, I am not familiar with our Minnesota holdings.

The CHAIRMAN. I wish you would describe the photographs to the stenographer so that they can be identified. Tell what they are and let them be marked.

The photographs were marked, respectively, 1, 2, 3, and 4.

Mr. GUY NASH. No. 1 is a logging road to which the hemlock has been skidded and from which they are now hauling the hemlock logs to the railroad and shows the skidway of hemlock by the side of the road with a gasoline hoisting engine loading the hemlock on the logging sleigh. The gasoline hoisting engine was gotten up by myself, and is very successful. No. 2, skidway of hemlock logs. No. 3, one of our barns in the woods, showing the horses and teamsters. No. 4, a sleigh load of hemlock logs for pulp wood.

The CHAIRMAN. What is a skidway?

Mr. GUY NASH. Logs are laid down on the ground for the timber to rest upon and the logs are carried upon them over poles which are called skidways or rolls.

Mr. STEELE. Adjacent to the railway.

Mr. RYAN. That is to assist in loading?

Mr. GUY NASH. Yes, sir.

Mr. RYAN. What sort of timber is that standing there [referring to photograph No. 1]?

Mr. GUY NASH. Hard-wood timber from which the hemlock has been cut out. If the ground plan of the Nekoosa mill, which you saw yesterday, would be of any service, we would be very glad to send one to you.

The CHAIRMAN. I think we might be able to use that possibly. Is there an increasing demand for hemlock for sawmill purposes?

Mr. GUY NASH. It seems to be just about stationary.

The CHAIRMAN. Is hemlock used more in lumber now than it was ten years ago?

Mr. GUY NASH. The reports, I think, show that in the last five or six years the production has just about been stationary.

The CHAIRMAN. You have some figures here that you said you would give us.

Mr. GUY NASH. This is a recent book gotten out by the State of Minnesota, by the State drainage commission, indicating the swamp and marsh land owned by the State of Minnesota in the different counties where they own land. There are plats showing their lands and indicating swamp lands for most of the northern counties of Minnesota, including Beltrami Pass, Itasca, St. Louis, and where they have no map they have a list of their land in Lake and Cook counties. They also have a tabulated statement showing the swamp land of the State owned by the State and private individuals, indicating that there is 2,468,678 acres of swamp land owned by the State and 4,168,316 owned by private individuals, making over 6,000,000 acres of swamp land in the northern part of Minnesota and nearly all of which would bear spruce timber.

The CHAIRMAN. Of course, swamp lands is a definition term of the Land Office in Washington. Surveys are often very careless. Do they include or exclude the larger proportion of those lakes in Minnesota?

Mr. GUY NASH. I take it that these statements are pretty close, because I see in looking at the charts that they show some State land which is not marked as swamp land, but, as I understand it, the lands which the State owns were acquired under the swamp-land act from the United States Government.

The CHAIRMAN. Land which the State owns would be acquired in two ways—first, the school lands, the sixteenth and thirty-sixth sections, probably, and the swamp lands. Of course, they acquire a great deal of land under the title of swamp land.

Mr. GUY NASH. As this was prepared by the drainage commissioners of the State, they made an endeavor, probably, at any rate, to get them separated.

Mr. RYAN. Does that acreage that you stated there include the lakes?

Mr. GUY NASH. I couldn't say as to that. I have not the information. They claim, by the way, that almost all of that land is susceptible of being drained and will be suitable for cultivating purposes when it is drained.

The CHAIRMAN. Yes; that is one of the projects of the conservation of resources commissions in the Agricultural Department. They want to drain the Everglades of Florida and the swamp lands of Minnesota, and at the last session of Congress we passed a bill authorizing the State of Minnesota to levy a special assessment on, I think, lands owned by the Government of the United States for drainage purposes in order to organize drainage districts. I have been up in that country and I have no doubt that a large proportion of that land will be drained, but I do not think it would all be used if it were not drained.

Mr. GUY NASH. Certainly not, because there must be some of it that has nothing on.

The CHAIRMAN. The swamp land, I mean. That land might be worth more to produce spruce wood than anything else; a great deal of it, possibly?

Mr. GUY NASH. Possibly.

The CHAIRMAN. It don't require the richest land for spruce, does it, if you have plenty of moisture?

Mr. GUY NASH. No; spruce will often grow on high land. In fact, the best of the spruce comes from high land; the trees are larger and better, but usually not in so thick stands.

The CHAIRMAN. We have very fine spruce growing on our own home place in Illinois on high rich soil that is worth \$150 an acre.

Mr. GUY NASH. You are not raising it for making paper.

Mr. Guy Nash produced an estimate by the American Lumberman, under date March 7, 1908, page 65, showing the cut of 1907 as 1,218,295,000 feet and stocks on hand 611,135,000 feet [referring to hemlock].

The CHAIRMAN. What do the figures under the term stocks have reference to?

Mr. GUY NASH. The amount of sawed lumber in the yards of the manufacturers.

The CHAIRMAN. There isn't very much variation in the wood cut from 1901 to 1907.

Mr. GUY NASH. It figures practically the same, 1901 being 1,264,000,000 and 1907 1,280,000,000.

Mr. RYAN. Where was that cut?

Mr. GUY NASH. In the lake States, Wisconsin and Michigan, there being no hemlock in Minnesota.

The CHAIRMAN. It says the hemlock product of the district west of Chicago including the greater part of Wisconsin was 568,000,000 feet, the cut in the Chicago district was 428,000,000 feet, making a total of 996,000,000. The output east of the Chicago district was 221,000,000 feet, making the grand total given. Chicago and the west of Chicago districts produced a little over 75 per cent of the hemlock.

Mr. RYAN. How are these figures compiled?

Mr. GUY NASH. The American Lumberman every year, for, I guess, twenty-five or thirty years—

The CHAIRMAN. Reports furnished the American Lumberman by operators showing the quantities of northern pine lumber cut and stocks on hand and so forth.

Mr. GUY NASH. They send out requests to all the manufacturers they can find.

Mr. RYAN. Those requests are pretty generally complied with?

Mr. GUY NASH. Yes.

The CHAIRMAN. What have you to say in reference to the probable future hemlock supply in Wisconsin?

Mr. GUY NASH. I do not think that hemlock is reproducing to any considerable extent, so that when the present forests are cut, the hemlock supply will be ended for all time.

The CHAIRMAN. If the hemlock forests are not reproducing and you do not get a cheap supply in some other place soon, that would naturally mean the constant enhancement in the value of the forests that are left?

Mr. GUY NASH. Naturally.

The CHAIRMAN. Because as you decrease the quantity you increase the demand?

Mr. GUY NASH. Yes, sir.

The CHAIRMAN. And the cost usually?

Mr. GUY NASH. Yes, sir.

The CHAIRMAN. How dense is this hemlock timber, take it in the forests up here?

Mr. GUY NASH. Our own forests, counting in the land which has no lumber on at all, the total timber will run between 5,000 and 6,000 feet to the acre, of which practically two-thirds is hemlock, and other lands I have been told that it is running heavier than that to the acre.

The CHAIRMAN. That would be in spots, or generally?

Mr. GUY NASH. In spots. A tract will run very heavy possibly, and 2 miles away it will be light again.

The CHAIRMAN. How many feet is a cord?

Mr. GUY NASH. We figure 2 cords to the thousand.

Mr. RYAN. What did that land cost you?

Mr. GUY NASH. We bought the main bulk of it at \$4.50 an acre.

Mr. RYAN. You do not buy any of your hemlock, do you, that you use here?

Mr. GUY NASH. Yes, we buy most of it that we use here.

Mr. RYAN. What is the difference in cost between that that you buy from the wood-producing companies and that that you cut from your own forests?

Mr. GUY NASH. There is not much difference in the cost. We buy a great deal of wood from the settlers, who figure their own labor at practically nothing, which makes the purchased wood very cheap. Clearing off their lands.

The CHAIRMAN. That is clearing it off for agricultural purposes?

Mr. GUY NASH. Agricultural purposes. There is lots of balsam and tamarack in this State which at present is scarcely used at all for paper-making purposes and which will undoubtedly be substituted as other timber becomes scarcer and more expensive.

The CHAIRMAN. Tamarack does not work up very well into pulp, does it?

Mr. GUY NASH. No, it does not work up very well. It is hard to handle. When it dries out it gets very hard and is hard to work in the wood room and hard to manufacture.

The CHAIRMAN. We had a sample of pulp before us in Washington; we had several samples, made from Michigan tamarack, and this statement was made about it. There were two samples, I think; one rather a brownish shade, and one yellowish. It was stated that that result was not from coloring but from the cooking process.

The fiber left is about equal to that of scrub pine. The wood reduces with great difficulty, and in the case of the two samples, the amount of screenings was very large. The difficulty, however, does not seem to be the lack of penetration of acid into the chips, but rather the inability of the acid to dissolve the pitch and resin in the wood, and on this account it is difficult to get the pulp well disintegrated on the blow-off. (Address by Dr. H. Stanley Bristol. Hearings, p. 1465.)

Mr. GUY NASH. In that connection you ought to remember that twelve or fourteen years ago people thought that they couldn't use hemlock in the sulphite process at all, they had to have spruce, and fifteen years ago thought they could not make news print of it without using poplar wood, and we can expect some improvement in the process in the future since there has been a steady improvement in the past.

The CHAIRMAN. I fully agree with you about that. I haven't any doubt that we will soon be making pulp out of any wood that is cheap and can not be used for lumber, no matter what it is.

Mr GUY NASH. Under the soda process, which is not used in the West, they can make pulp out of almost anything.

The CHAIRMAN. They are experimenting in Washington with the aspen or what you call the poplar out here. Do you know whether your people have tried that?

Mr. GUY NASH. In the sulphite process?

The CHAIRMAN. Yes.

Mr. GUY NASH. I never heard of their doing it, did you?

Mr. THOMAS E. NASH. Very little. It is too soft and mushy.

The CHAIRMAN. They are experimenting with a large number of different woods, including the yellow poplar, box elder, soft maple.

Mr. NASH. The yellow poplar is different from our poplar up here. Isn't that the big poplar that grows in West Virginia and Kentucky?

The CHAIRMAN. Yes; that is not the cottonwood. Your poplar that grows around here—this white-bark stuff—is aspen.

Mr. GUY NASH. The balm of Gilead that used to be used for shade trees in this country is more likely cottonwood tree that grows to the south of us.

The CHAIRMAN. Balm of Gilead is applied to a number of species—yellow poplar and cottonwood wood.

Mr. GUY NASH. I never heard it used in connection with yellow poplar at all.

The CHAIRMAN. Balm of Gilead usually is a cottonwood tree, but it is different from the ordinary cottonwood tree—not quite as hardy, I guess, although it does grow up in Canada. It is hardy so far as temperature is concerned. You do not have any trouble with the balsam.

Mr. GUY NASH. It would be better to ask Mr. Steele or Potter about that. They have been up against it.

Mr. THOMAS E. NASH. We handle balsam without any trouble.

STATEMENT OF MR. G. F. STEELE, OF PORT EDWARDS, WIS.

Sworn and examined by the CHAIRMAN.

The CHAIRMAN. What is your position?

Mr. STEELE. Secretary of the Nekoosa-Edwards Paper Company, in charge of the manufacturing and selling.

The CHAIRMAN. What is the output or capacity of your combined mills?

Mr. STEELE. One hundred and fifty tons of paper, a maximum of 120 tons of sulphite pulp, and about 90 tons of ground-wood pulp a day.

The CHAIRMAN. What do you make mostly—news-print paper?

Mr. STEELE. We make fiber and manila papers—about 100 tons a day. It is the largest single producing mill in this country on that paper, and 50 tons a day of news-print paper.

The CHAIRMAN. How much wood do you use in the course of a year?

Mr. STEELE. We use 30,000 cords of spruce and at a maximum of about 90,000 cords of hemlock, some tamarack and balsam included in these figures.

The CHAIRMAN. We will be glad to have you make any statement that you wish to.

Mr. STEELE. In regard to the amount of spruce wood bought on this river, I have some figures which were made showing the amount of hemlock and spruce which would be used if the mills were running full in this territory. I have not those figures with me now, but as I remember it, the amount of spruce, the maximum production on this river would amount to about one hundred and twenty thousand cords and for hemlock about the same quantity. Speaking about the Canadian situation, Mr. Chairman, and to relieve the Wisconsin paper mills of the odium of having it said that they had gone ahead and built their mills without regard to the future wood supply, I desire to state that this matter came up in 1883 as to the supply of spruce pulp wood in Wisconsin. At that time it seemed to us that we had a large supply for the future because the mills were few in number and small in production and we did not look far into the future to appreciate the enormous growth in the industry, requiring a much larger amount of spruce wood than was then used. But in spite of that, for instance, we had a concern by which I was employed at that time which sent an expert to Canada to ascertain the possibility of future supply from Canada in case the Wisconsin supply played out. They went by steamer to Sault Ste. Marie and then chartered a small vessel and went up the east coast of Lake Superior, stopped at the Agawa, the Batchewung and the Montreal rivers, and going up into these streams as far as they could get with small boats. This was twenty-five years ago and the country was very wild. They found large tracts of spruce and they brought back samples, disks cut across the trees, of such spruce as we had never seen in Wisconsin, and the samples were exhibited in Appleton and created considerable comment at that time. It seemed to us that there was no question but what with our own supply in Wisconsin, and our limited use of it, owing to the small size of our mills and the apparently abundant supply of spruce in Canada, that the future was assured to us as to the wood supply.

We did not look forward at that time to a prohibition of export of pulp wood from crown lands in Canada. That thing was undreamed of at that time. There is unquestionably a large amount of spruce timber to the east and north of Lake Superior and to the west of Lake Superior. We have had large tracts offered us and have knowledge of other tracts. There are certain concessions which are now occupied by mills in Canada making wood pulp. For instance, Spanish River concession, as I understand it, covers six thousand square miles. They make very large claims as to the amount of pulp wood on their concession. Further east from them are the Imperial Mills at Sturgeon Falls. They have another concession from the Canadian government. Their concession is not so large nor is it so heavily timbered with spruce, but it is said to contain a very large cut of spruce timber. A little farther east and to the north is the Montreal River concession, which is owned by J. R. Booth, at Ottawa. He has to drive his timber, I think, about 500 miles to get it to his mills at Ottawa. It is a long, slow drive, taking probably two years from his concession to his mills. There are other large tracts which have been offered to us, but being unable to bring the wood over here and being unwilling to establish ground wood mills over there, we

have not taken advantage of them. To the west of Lake Superior there is a good deal of timber, as Mr. Nash has already testified. There is a large mill projected at Kuchicing, sometimes known as International Falls. It is on the boundary line, Fort Francis on one side and International Falls on the other.

Mr. RYAN. What about the Georgian Bay district?

Mr. STEELE. I do not know so much about the Georgian Bay district, but we had men in 1883 on the Serpent River, which is one of the rivers entering into the Georgian Bay, and they reported that they found as good pulp wood and as much pulp wood on the Serpent River as on the rivers farther north.

Mr. RYAN. There is a big ground-wood mill on Georgian Bay. isn't there?

Mr. THOMAS E. NASH. At Sault Ste. Marie there is one.

Mr. STEELE. There is one at Webbwood, Espanola.

The CHAIRMAN. That is on the north passage from Georgian Bay?

Mr. STEELE. Yes, sir.

The CHAIRMAN. Is their concession in that locality, the Spanish River concession?

Mr. STEELE. Yes, sir.

Mr. RYAN. They have got 6,000 square miles?

Mr. STEELE. Six thousand square miles, they claim. That is what they claimed to us to have. Here is where Mr. Booth's concession is right here. [Indicating on the map.]

The CHAIRMAN. That is around Lake—

Mr. STEELE. Just north of Lake Temiscamingue. We have had other concessions offered to us around Lake Babittiti. You will notice how far Mr. Booth has to drive his timber.

Mr. RYAN. Has he the exclusive use of the river?

Mr. STEELE. Oh, no. There are all sorts of timber coming down that river at the same time.

Mr. NORRIS. He told me he had 6,000 square miles in Ottawa River territory.

The CHAIRMAN. I suppose each man that has a concession up there says that it is 6,000 square miles.

Mr. STEELE. That is the fashion.

The CHAIRMAN. There are a good many 6,000 square miles up there.

Mr. STEELE. Yes; it is all outdoors clear to the North Pole. We have had a concession offered to us around Lake Nipigon. Mr. Guy Nash has been in that territory there and there is considerable spruce there. They claim a very large amount, but we have never examined it closely enough to ascertain whether their claims are correct or not. There are other opportunities for spruce timber north of Lake Superior, Mr. Chairman. There is a movement on foot to build a railroad from some point on Lake Superior to Hudson Bay, probably to the mouth of Albany River, which is a very large stream, going into James Bay at this point here [indicating upon the map], and there is so much talk about the building of a road across here and affording an easy and prompt outlet during the summer months for grain from the Assiniboine and Saskatchewan country in the west that it is probable that road will be built before a great while.

Mr. RYAN. Where will they take the grain to?

Mr. STEELE. Right in here [indicating].

Mr. RYAN. What do they want it there for?

Mr. STEELE. To take it to Europe through Hudsons Bay, which they claim is the shorest route. It is said there is an enormous amount of pulp wood along the Albany River and north of it. All the paper men have been approached in this district by the promoters and people who are back of that proposition and they have made very favorable propositions in regard to pulp wood. I do not know how they would get around prohibition of export, for I presume that is in the Province of Ontario, although it may be north of it. We are not so poverty stricken on the pulp-wood question as would seem at first blush, but we are anxious to conserve the amount of pulp wood in the United States, in the States of Michigan, Minnesota, and Wisconsin, which still remains and piece it out as long as possible. This year we received from Wisconsin four times as much spruce as we received from Ontario or from Canada; more than we have for many years. During the boom times of the past few years the men have been kept at more remunerative occupations and have not gotten out the spruce which remains in the State, and this year we have obtained four times as much as we got from Ontario and very much more than in previous years.

The CHAIRMAN. That spruce that is cut in the State, is that mainly cut by settlers?

Mr. STEELE. Yes, sir.

The CHAIRMAN. Upon their own land?

Mr. STEELE. Yes, sir. About the only hope that we have at present for cheaper pulp wood, and, consequently paper at the prevailing prices, in order to make both ends meet, would be to augment our own local supply with the pulp wood from Canada. And, of course, under the present laws, we are unable to obtain it in any large quantity owing to the prohibition of export from Crown lands. It does not seem quite fair to us that there should be a proposition to remove the duty on paper and at the same time keep us cut off from a supply of pulp wood which we know exists and thereby encourage the impoverishment of American forests. It strikes us as poor economic policy.

The CHAIRMAN. What would be your view as to your manufacturing paper here if you could get pulp wood here without any restriction from Ontario and the duty taken off?

Mr. STEELE. I do not think it would be proper to take the duty off from the manufacture of paper. It is no more than a revenue duty now and this Government has got to raise revenue from some source or other and it is about as low as you would put it if you wanted a revenue duty.

The CHAIRMAN. It is a revenue duty in a way, but it does not produce very much revenue.

Mr. STEELE. It probably will produce more in the future than it has in the past.

Mr. RYAN. What effect would the removal of the duty on wood pulp have, provided you have Canadian timber admitted here free?

Mr. STEELE. It would cheapen the cost of production of paper in this territory.

The CHAIRMAN. How about sulphite?

Mr. STEELE. The hemlock supply is very large in this territory. The Cleveland Cliffs Iron Company, of Munising, Mich., has about

2,000,000,000 feet of standing hemlock. Prominent stockholders in the Cleveland Cliffs Iron Company owned the Munising Paper Company, and the Munising Paper Company is said to have 500,000,000 feet of standing hemlock of its own, thus making a possible supply to that company of 2,500,000,000 feet of standing hemlock.

Mr. RYAN. How long would that last?

Mr. STEELE. That company must use 50,000 cords a year, at the outside. It will take twenty years to use up a billion feet.

Mr. RYAN. They have got about fifty years' supply then?

Mr. STEELE. According to that.

Mr. RYAN. What do they make?

Mr. STEELE. Fiber papers.

Mr. RYAN. What is their output?

Mr. STEELE. About 60 tons a day.

Mr. RYAN. Where is that standing timber that you speak of located?

Mr. STEELE. Right south of Munising.

Mr. RYAN. They own an island there, I know.

Mr. STEELE. Yes, sir.

The CHAIRMAN. They are beginning to cut that timber up there for all purposes now, aren't they?

Mr. STEELE. Not on that land.

Mr. RYAN. They own Grand Island entirely?

Mr. STEELE. Yes, sir. There are other large tracts of standing hemlock all through the northern part of the State of Wisconsin. The Soo Railroad people claim that there is 3,000,000,000 feet of standing hemlock north of and tributary to their line in Wisconsin.

The CHAIRMAN. It is not very long ago when they claimed that the supply of white pine in Michigan and Wisconsin was inexhaustible?

Mr. STEELE. Yes, sir.

The CHAIRMAN. It is only recently that they discovered that it was not?

Mr. STEELE. Yes, sir.

The CHAIRMAN. Now, this hemlock is largely used for sawmill purposes?

Mr. STEELE. Yes, sir.

The CHAIRMAN. It wouldn't take very long to clean it up if everybody went for it, would it?

Mr. STEELE. Of course, it depends upon how fast they cut it, how quick they would clean it up. I suppose twenty years will see a good deal of it cleaned up.

Mr. RYAN. You do not think that the manufacture of sulphite in this section would suffer at all if the duty was removed?

Mr. STEELE. Do you mean the duty on sulphite?

Mr. RYAN. Yes.

Mr. STEELE. I certainly do.

Mr. RYAN. They would suffer in this section?

Mr. STEELE. Especially the duty on European sulphite.

Mr. RYAN. I mean as between the United States and Canada.

Mr. STEELE. I should think it would be somewhat harmful to us to have the duty on sulphite removed, because they make their sulphite out of spruce over there and they get a very much larger yield out of a cord of wood than we do out of a cord of hemlock, and consequently the cost of wood for a ton of pulp is less than ours.

Mr. RYAN. How would you calculate that the Canadian people could be induced to remove that prohibition of 25 cents a cord, or whatever it is, on wood from the Crown lands?

The CHAIRMAN. Absolute prohibition in Ontario.

Mr. RYAN. Yes—excepting some concession would be made to them.

Mr. STEELE. I think probably some concession would have to be made to them.

Mr. RYAN. What sort of a concession have you in mind, if any?

Mr. STEELE. So far as we are concerned, we would not object seriously to seeing the duty on ground-wood pulp removed.

Mr. RYAN. But you would object on sulphite?

Mr. STEELE. Yes, sir.

Mr. RYAN. And you would object to the removal of the duty on paper?

Mr. STEELE. Yes, sir. The competition from Sweden and Norway, Finland, and Russia on sulphite is very much more to be dreaded by us than the competition from Canada. Canadians have the same dread of that competition, although I think the trouble is at its worst now because they are beginning to realize over there that their stock of wood is not inexhaustible.

Mr. RYAN. If they want any concession made in a proposed tariff bill on sulphite, you would want nothing to be included on the free list except that from Canada?

Mr. STEELE. Yes, sir, surely. In fact, I do not think that you would get any concession out of Canada on the pulp-wood situation by a trade unless it were arranged that our tariff on European sulphite should be increased. They are very much alarmed in regard to European competition on sulphite. They have gone ahead abroad and built a great many new mills, which is evidence that their cost must be very low. We understand that their labor costs are exceedingly low. They are better advanced in the method of making sulphite pulp than we are, because they have a great deal more technical help at a cheap price. From what we know of their cost, they are lower than we are in several important particulars. Their wood is cheaper, their labor is very much cheaper, they burn pyrites very largely for the manufacture of acid, and their technical processes are a great improvement upon ours. The consequence is that they are able to come into this market and offer pulp at a price which practically knocks us out, if the duty were removed.

Mr. RYAN. On sulphite?

Mr. STEELE. Yes, sir.

Mr. RYAN. What about their supply of raw material that goes into the manufacture of sulphite?

Mr. STEELE. All I know about that is what I have read in the trade book. I was reading last night of the situation in Norway and Sweden and the enormous growth of the industry in the past few years and also the tremendous growth in Russian Finland, which has resulted in almost a crash in the market over there. For strong unbleached and easy bleaching pulp, the market for the pulp is held up strong, but on the lower grades there has been a decided slump in the recent past, something that we have been looking for for the past year. We could not understand how they could keep on build-

ing mills at the rate they were building them without overdoing the market, and they have apparently succeeded in doing that now.

Mr. RYAN. What sort of wood do they use there?

Mr. STEELE. I am not competent to testify on that.

Mr. RYAN. You don't know as to their supply?

Mr. STEELE. No, sir. I have talked with men who have visited their mills and they state that they have very good wood and very cheap wood. They have got water powers and their wood is very accessible to their mills.

The CHAIRMAN. They do not have any such water powers there in profusion as we have, do they?

Mr. STEELE. I think they have in Sweden and Norway. Some years ago when I was with the International Harvester Company. I sent Mr. B. A. Kennedy, my first assistant, abroad to see about the establishment of a plant in Norway. He went all over the country and was offered some very fine powers. We finally established a plant at Norrkoping, which is now in successful operation. And he reported that there were a large number of very heavy and desirable water powers which had been offered him; that the country was traversed by canals, making transportation very cheap, and that the rivers were not of great length and very accessible and easy to improve. I think they are very much favored in their manufacturing situation by their transportation facilities by canals all through the country and by the large powers which are easy to improve and cheap to improve, adjacent to the wood supply.

The CHAIRMAN. A river which is not of great length unless it has a good lake reservoir is not apt to have water power during the entire year?

Mr. STEELE. They have many lakes. They have good reservoir supply and conserve the water over there very carefully.

The CHAIRMAN. You say they can manufacture over there cheaper because they have more advanced methods than you have. What do you mean by that?

Mr. STEELE. The technical methods are better than ours. They go into details more carefully than we do. The men that we bring over here do not seem to succeed here, and those of our trade who have visited the foreign mills, men like Mr. Stebbins, of the Stebbins Engineering Company of Watertown, N. Y., who is acknowledged to be a past master in the art of sulphite making, M. N. Jones, of the Katahdin Pulp and Paper Company of Lincoln, Me., who testified before you at Menasha the other day, another expert in the sulphite business, Mr. Theodore B. Burgess, who used to operate the Burgess Sulphite Fiber Company at Berlin, N. H., and other intelligent and able men who know the sulphite business, all agree that the foreign methods are very much better than ours.

The CHAIRMAN. Why don't we adopt them?

Mr. STEELE. It is largely a question of technical help and of close details to business. We look too closely to the output rather than the quality. We rush things too much and do not watch the quality as closely as they do over there.

Mr. RYAN. Ought that not to have the effect of lessening the cost of your product, rushing it through?

Mr. STEELE. It should; yes, sir. But you take it on the sulphur and lime and that sort of thing; they have worked out the use of

pyrites, and that has never been a success in this country and has been tried.

Mr. RYAN. What is pyrites?

Mr. STEELE. Iron pyrites. They use copper pyrites over there a good deal. It is found in iron mines and copper mines. It is a sulphur combined with some kind of metal. That has been tried in this country a number of times. Mr. Warren Curtis, formerly of the International Paper Company, tried it at Palmers Falls. I think it was also tried at the Soo, was it not, Mr. Nash?

Mr. THOMAS E. NASH. No; they did not try it there. They tried nickel ore, but not iron pyrites.

Mr. STEELE. It has been tried a number of times. We have never been able to work it out yet. Mr. George F. Harding, one of the ablest paper and sulphite mill architects in this country—I wrote him about it a while ago, and he said that the efforts which had been made in this country were not a success and he doubted whether we would be able to make a go of it. Mr. Warren Curtis is interested in the new mill to be built at International Falls. His son told me they should not attempt to put in the pyrite process there.

The CHAIRMAN. What advantage is it; what object is it?

Mr. STEELE. Very much cheaper sulphur, and sulphur is one of the principal items of the cost of sulphite pulp. If you can get your gas cheaper, you can make sulphite pulp cheaper.

The CHAIRMAN. I should think it would cost more, unless you were right at some place where they take out iron pyrites; it would cost more to convert than buy the sulphur.

Mr. STEELE. Pyrites is used very largely in this country in the manufacture of sulphuric acid. In Sweden and Norway and Germany they bring the pyrites by boat practically to the doors of the mills. It is very cheap transportation and they get something out of the matter that is left. If it is copper pyrite, they get quite a good deal out of it.

The CHAIRMAN. They make a superior quality of sulphite?

Mr. STEELE. Yes; they do; and they make some low grade, too, but they make higher grade sulphite than we make anywhere in this country, and there are certain grades that can not be bought in this country, because they are not manufactured here at all. You take one concern, the Waldhof Company; it makes pulp that is made nowhere else in the world. It is a higher priced pulp than the prices we ask, and paper makers who make fine papers can afford to pay for it, because it gives them something they can not get in this country. They go to considerable pains in the way of picking over the chips with girls and sorting the pulp after it is made. They do things that we do not attempt to do at all in this country. There is only one mill in this country attempts anything of that sort. That is at Port Huron, Mich.

Mr. RYAN. Coming back to Wisconsin again, do the ground-wood manufacturers here in Wisconsin come into competition in this market with Canadian ground wood?

Mr. STEELE. Yes, sir.

Mr. RYAN. With what results?

Mr. STEELE. If it were not for the Canadian competition the price of ground-wood pulp would undoubtedly be higher here.

Mr. RYAN. What as to the sulphite?

Mr. STEELE. We are in competition with Canadian makers and with the foreigners all the time.

Mr. RYAN. In this market?

Mr. STEELE. Yes; right in this market; right in this town.

The CHAIRMAN. We visited yesterday with you and other gentlemen here the Nekoosa mill, Port Edwards mill, the mill of the Consolidated Pulp and Paper Company, and the mill of the Grand Rapids Pulp and Paper Company.

Mr. STEELE. Yes, sir.

The CHAIRMAN. Those are the four principal mills in this immediate vicinity?

Mr. STEELE. Paper mills; yes, sir.

The CHAIRMAN. What is their total output, do you remember, or capacity?

Mr. STEELE. About 250 tons of paper a day.

Mr. SIMON. About 275, I think, would be nearer.

Mr. STEELE. 265.

Mr. SIMON. There is the Centralia.

Mr. STEELE. With that it would be about 290 tons a day—with the Centralia mill that you did not visit yesterday.

The CHAIRMAN. I mean the mills right in this vicinity.

Mr. STEELE. 290 tons a day, approximately.

The CHAIRMAN. That would mean the consumption of about how much wood in the course of the year?

Mr. STEELE. 120,000 cords of spruce and 120,000 cords of hemlock for the entire valley.

Mr. THOMAS E. NASH. That can not be right, Mr. Steele. There is the Brokaw.

Mr. STEELE. I left the Brokaw out entirely on sulphite. The Brokaw makes about 40 tons a day, don't they, Mr. Nash?

Mr. THOMAS E. NASH. More than that. About 160,000 cords.

Mr. STEELE. Yes; about 160,000 cords of hemlock.

The CHAIRMAN. How many people do you estimate in this valley are dependent during the year upon these mills?

Mr. STEELE. I have no data. Have you any on that, Mr. Nash?

Mr. THOMAS E. NASH. About 1,000 men at these 5 mills. Between 1,000 and 1,100 the year around. That is just the men at the mills, not taking into account the men employed at getting out wood.

The CHAIRMAN. Do you suppose it is practicable for us to obtain a statement showing the introduction of ground wood and sulphite in the manufacture of paper and the proportions that have been used from the commencement down to the present time?

Mr. STEELE. I think that can be made up by men who have been in business for the last twenty-five or thirty years.

The CHAIRMAN. Will you endeavor to get us a statement of that kind?

Mr. STEELE. I will try to do so with the cooperation of some of our friends in the Fox River Valley.

The CHAIRMAN. Of course, the price of paper has decreased since the introduction of wood in its manufacture. Which was used first, ground wood or sulphite, here?

Mr. STEELE. Ground wood. It was brought to Appleton by Bradner, Smith & Co., of Chicago, first, who owned a small ground-wood

mill, and the machines in that mill were brought from Germany, where the process was first developed commercially. They ground poplar wood and nothing else at first. When we first went into the business, in 1879, they were just beginning to use poplar ground-wood pulp in a small way. They were very careful not to put very much in the paper for fear it would spoil the paper. The western newspapers were small in size and limited in circulation, and much of the paper used was made from rags or from straw. The Chicago Tribune at that time was supplied from a mill at Batavia, Illinois, made very largely from straw pulp, and the mills in the central west supplied the papers at Cincinnati and other points. With the introduction of ground wood those mills went on to other grades and specialties, and the industry gradually grew and paper became cheaper, and spruce wood was brought in for use as ground wood, and ultimately the sulphite process was adopted and rags went out almost entirely for the use of the lower grades of paper, cellulose from wood being used in place of cellulose from rags.

The CHAIRMAN. We have been through several, to say the least, paper mills where they manufacture ground wood and sulphite and mix them together to make paper and the processes have some variations, but on the whole are very similar.

Mr. STEELE. Yes, sir.

The CHAIRMAN. Somebody might come along who would have an original idea on the subject and revolutionize the business?

Mr. STEELE. Yes; that is possible.

The CHAIRMAN. It has been running on the same plane now for a good many years?

Mr. STEELE. Yes, sir.

The CHAIRMAN. Maybe you are the man?

Mr. STEELE. It don't look reasonable to me.

The CHAIRMAN. Do the wood-pulp mills compete with the straw mills in any way?

Mr. STEELE. Only in a very limited way. There are some low grades of boards made which compete with the strawboard to some extent. There is no straw pulp now used in any large commercial quantities. There is a small amount of straw pulp imported from Germany where they still make straw more or less.

The CHAIRMAN. Straw is now used to make what?

Mr. STEELE. Strawboard.

The CHAIRMAN. Which is cheap pasteboard.

Mr. STEELE. Yes, sir.

The CHAIRMAN. Doesn't it have the same tensile strength that wood pulp has?

Mr. STEELE. I don't know about that, for it is so long ago since we made any straw paper in this part of the country. That was when I was a young chap going into the business, and I don't remember what the quality of the paper was. As I remember, it was very good paper that was made from straw, but it cost tremendously to work it up and the yield was small. I do not think that is liable to come into use again until the world's supply of wood is very much less than it is now.

Mr. RYAN. The mills in this valley, what hours do they work during the week?

Mr. STEELE. We run from Monday morning at 7 o'clock until Sunday morning at 7 o'clock, working two-tour system, thirteen-hour nights and eleven-hour days, changing every week.

Mr. RYAN. The mills are not unionized here?

Mr. STEELE. No, sir. Open shop.

Mr. RYAN. Wages practically the same as in the Fox River Valley?

Mr. STEELE. Yes, sir; if anything, a little higher.

The CHAIRMAN. Was your mill connected with the fiber and manila trust?

Mr. STEELE. No, sir.

The CHAIRMAN. Have any relations with it?

Mr. STEELE. No, sir. Mr. Nash refused to allow the concern to have anything to do with it whatever. They came here and endeavored to interest us in the proposition and we declined.

The CHAIRMAN. Do you desire to make any statement in reference to the so-called Dean-Shibley proposition?

Mr. STEELE. No, sir.

The CHAIRMAN. Does it look to you as though there was any likelihood of that going through?

Mr. STEELE. No, sir. It looks like holding an inquest to talk about it.

The CHAIRMAN (to Mr. Nash). If you have anything occur to you on this pulp-wood question, we would be very glad to have you write us about it. We will put any information that you send us in connection with your testimony if we receive it in time, and if not, we will put it in afterwards.

Mr. THOMAS E. NASH. Thank you. After a while I will think it over, and if there is anything I will write you.

Mr. STEELE. The chairman asked me about the foreign manufacturing methods. They not only beat us in technical matters, but they have better discipline in their shops, and they enforce the rules in regard to piecework methods more consistently and thoroughly than we do. The Germans especially have advanced wonderfully in their shop practice in the past few years, partly through the efforts of their consular agent to get information and partly through the information obtained by representatives of the various trades who have been sent abroad to study in American factories and take our methods home with them, and partly through a realization that they had got to improve their methods if they were to compete with the American piecework methods. Mr. Kennedy, now division manager of manufacturing and patent business of the International Harvester Company, went over there some years ago looking over their methods and came back and reported that they had not only copied our piecework method but had gone us one better. The administration of their shops is better than the average in this country. They have adopted our special machines, which has enabled this country to lead in shop manufacturing methods, and with them the methods of paying for piecework, which also cheapens production.

The CHAIRMAN. Have you any trained chemists?

Mr. STEELE. We have just started in with one now. We have had one, but he was promoted to a position as superintendent of one of our mills.

The CHAIRMAN. Do you suppose you could find a manufacturing enterprise of equal size in Germany that deals in any way with chemicals that does not have a number of trained chemists?

Mr. STEELE. Never.

Mr. RYAN. They all have them?

Mr. STEELE. Yes, sir.

Mr. RYAN. That is a distinct loss to the American manufacturer not to keep abreast with foreign manufacturers?

Mr. STEELE. Yes, sir.

Mr. RYAN. If you want to enter into competition with the foreign markets?

Mr. STEELE. Yes, sir.

The CHAIRMAN. Most of the other manufacturing enterprises in America now where they deal at all with chemistry are beginning to use trained chemists.

Mr. STEELE. Yes. Beginning to appreciate the fact that if we are going to hold our prominence in the market we have got to devote more attention to the technical end of our business.

The CHAIRMAN. I suppose the steel company maintains a large chemical college?

Mr. STEELE. Yes, sir. They are all the time bringing forward young men from technical schools to occupy positions of prominence in their business.

Mr. RYAN. The steel mills are doing that?

Mr. STEELE. Yes, sir.

Mr. THOMAS E. NASH. Haven't you a chemist from Sweden?

Mr. STEELE. He has been promoted to superintendent. All the technical processes in the steel business are far ahead of those in the paper business. The paper business seems to me, after having been out of it for thirteen years, very slow to take advantage of the possibilities.

The CHAIRMAN. I do not like to express an opinion and do not like to have an opinion on any subject that I know as little about as I do about the paper business, but in going around to the paper mills it has seemed to me that gentlemen have relied more upon that that would come into the untrained mind of a day laborer than that would come into the mind of a trained scientist.

Mr. STEELE. It impresses a man who has been in other lines of business where they carry out details more carefully and produce greater economies, the tremendous waste in the paper business. It is capable of great development on the manufacturing side.

Mr. RYAN. Undoubtedly, taking advantage of many of the things which you have in mind in connection with the production of paper would put the American manufacturer of paper in a better position to compete, even if there is some apparent hardship placed upon him as the result of a revision of the tariff.

Mr. STEELE. I think we could adopt a good many of the foreign methods to advantage in this country to cheapen cost, but you will find a good many mills that are operated and managed by a low-priced employee who has never had any technical knowledge and who has never had any training or experience as a salesman, who has, perhaps, been a bookkeeper in some paper mill and has been promoted

to manage a large business employing a capital amounting to hundreds of thousands of dollars. The results are not very edifying either in the market or the factory. There is no business that I know of where the manufacturing details are not worked out closer than in the paper business.

The CHAIRMAN. What is the tendency of the mills of this valley as to the manufacture of wrapping papers, news-print paper, and other different kinds of paper?

Mr. STEELE. In the Nekoosa mill the production of 100 tons a day has gone off from print onto wrapping. The Consolidated mill is a very fine mill, and is going onto higher grades of paper as rapidly as possible, apparently. In fact, I think Mr. Mead stated yesterday that was his intention. The Grand Rapids Paper and Pulp Company is also running other grade of papers aside from print. It has been stated that other mills have contemplated doing the same thing. It would look, therefore, as though there was more profit to be obtained in the fiber papers than print in this section.

The CHAIRMAN. You think there is a tendency here to increase the production of other kinds of paper at the expense of the quantity of news-print paper produced?

Mr. STEELE. Largely because of the excessive cost of spruce pulp wood. That is the reason for it. We have the hemlock here, which is comparatively cheap. We can compete with anyone anywhere in the country on fiber papers. Hemlock will produce a better article than spruce will in fiber papers and we can produce it cheaply. The consequence is, the natural tendency is to get away from the ground-wood papers to the sulphite papers made from hemlock. If we could get our spruce from Ontario and from Canada I think the tendency would be stopped.

The CHAIRMAN. Has the relative price of these papers anything to do with this tendency to change; that is, is there a similar tendency in the market price of wrapping papers, manila and fiber papers, as compared with news-print papers?

Mr. STEELE. Do you mean is there more money in its manufacture?

The CHAIRMAN. No. Does the same inducement to go into manila papers exist all over the country that does here?

Mr. STEELE. No; I think it is purely local, because we have the hemlock here and they haven't it in the East. They have the spruce and we haven't it. So that it is natural, like the force of gravity. It goes to the point of least resistance.

The CHAIRMAN. Then it is not because manila paper has gone up in price very largely as compared to news-print paper?

Mr. STEELE. No; this started years ago before there had been any enhancement of values.

The CHAIRMAN. The change here is owing principally to the relative cost of the raw material?

Mr. STEELE. Yes, sir.

PULP AND PAPER INVESTIGATION HEARINGS

HD 9821
As
'1908a

IMPORTATION STATISTICS

SELECT COMMITTEE OF HOUSE OF REPRESENTATIVES

JAMES R. MANN, Illinois, *Chairman*

JAMES M. MILLER, Kansas

HENRY T. BANNON, Ohio

WILLIAM H. STAFFORD, Wisconsin

THETUS W. SIMS, Tennessee

WILLIAM H. RYAN, New York

NO. 30

WASHINGTON

GOVERNMENT PRINTING OFFICE

1908

WOOD PULP, PRINT PAPER, ETC.

Pursuant to request by Hon. James R. Mann, chairman of the Select Committee on Pulp and Paper Investigation, made to the Treasury Department for certain information relative to importations of wood pulp, filter masse, printing paper, and pulp woods at the leading ports during the period from January 1, 1907, to June 1, 1908, which request was later followed by a letter to the President, dated July 14, 1908, in reference to the desired information, the Treasury Department, acting under the direction of the President, submitted a tabulated statement.

This tabulated statement shows the date of arrival, quantity, appraised value, and country of origin of each importation of mechanically ground wood pulp, chemical pulp, unbleached and bleached, filter masse or filter stock, printing paper and pulp woods, specified in paragraphs 393, 395, 396, and 699 of the tariff act of July 24, 1897, together with the duties, including countervailing duties, collected thereon, for the period from January 1, 1907, to June 1, 1908, at the following ports:

New Orleans, La.; Kansas City, Mo.; Chicago, Ill.; Milwaukee, Wis.; Marquette, Port Huron, Detroit, Mich.; Dayton, Ohio; Erie, Pa.; Niagara Falls, Buffalo, Oswego, Cape Vincent, Ogdensburg, Plattsburg, N. Y.; Alburg, East Alburg, Swanton, St. Albans, Richford, Newport, Vt.; Baltimore, Md.; Philadelphia, Pa.; New York, N. Y.; Bridgeport, New London, Conn.; Boston, Mass.; and Bangor, Me.

The statistics of the first 15 named ports are printed in this number of the hearings.

PORT OF NEW ORLEANS.

Statement of importations at the port of New Orleans, La., from January 1, 1907, to June 1, 1908.

PULP OF WOOD.

[Specified in paragraph 393, tariff act of 1897. Mechanically ground. Duty, one-twelfth of a cent per pound.]

Date.	From—	Quantity.	Value.	Duty.
1907.				
September.....	Sweden.....	<i>Pounds.</i> 56,000	\$993.00	\$46.67
October.....	do.....	56,000	990.00	46.67
		112,000	1,983.00	93.34

PORT OF NEW ORLEANS—Continued.

Statement of importations at the port of New Orleans, La., from January 1, 1907, to June 1, 1908—Continued.

PULP OF WOOD. CHEMICAL, UNBLEACHED.

[Duty, one-sixth of a cent per pound.]

1907.				
June.....	Norway.....	67,200	\$1,058.00	\$112.00
	Sweden.....	67,200	1,058.00	112.00
August.....	Norway.....	67,200	1,058.00	112.00
	Sweden.....	112,000	1,685.00	186.67
October.....	Norway.....	67,200	1,058.00	112.00
November.....	do.....	100,800	1,587.00	168.00
1908.				
January.....	Norway.....	67,200	1,058.00	112.00
February.....	Sweden.....	67,200	1,058.00	112.00
		616,000	9,620.00	1,026.67

FILTER MASSE, OR FILTER STOCK.

[Under paragraph 395.]

None.

PRINTING PAPER.

[Under paragraph 396. Value above 5 cents per pound. Duty, 15 per cent.]

1907.				
July.....	Germany.....	6,000	\$364.00	\$54.60
1908.				
February.....	England.....	3,000	178.00	26.70
March.....	do.....	1,600	102.00	15.30
April.....	Germany.....	1,816	227.00	34.05
May.....	England.....	1,000	103.00	15.45
		13,416	974.00	146.10

PULP WOODS.

[Under paragraph 699.]

None.

PORT OF KANSAS CITY, MO.

Imports of ground wood pulp at Kansas City, Mo., January 1, 1907, to June 1, 1908.

C. E.	Date of arrival.	Quantity.	Appraised value.	Country of origin.	Duties.
1907.		Pounds.			
1064.....	May 27	78,107	\$1,113.00	Chicoutimi, Quebec...	\$65.09
1065.....	do	128,214	1,827.00	do	103.84
1074.....	May 30	155,992	2,300.00	do	129.99
1080.....	May 31	250,302	3,567.00	do	208.68
1081.....	do	159,341	2,341.00	do	132.81
1096.....	June 4	68,922	982.00	do	57.43
1099.....	June 5	147,903	2,108.00	do	123.25
1116.....	June 8	65,751	937.00	do	54.79
1129.....	do	80,017	1,140.00	do	66.68
1133.....	June 15	72,848	1,038.00	do	60.70
1134.....	June 17	75,408	1,074.00	do	62.64
8.....	June 18	96,574	1,376.00	do	80.48
9.....	June 22	103,468	1,474.00	do	86.22
32.....	June 25	32,744	467.00	do	27.29
33.....	do	125,341	1,786.00	do	104.45
34.....	June 24	47,401	645.00	do	39.50
67.....	do	30,405	432.00	do	25.34
68.....	June 25	92,327	1,316.00	do	76.94
69.....	June 24	40,712	581.00	do	32.97
60.....	June 26	56,222	801.00	do	46.85
98.....	July 9	23,611	336.00	do	19.67
99.....	do	37,118	529.00	do	30.93
100.....	June 24	34,749	495.00	do	28.96
131.....	July 17	37,317	532.00	do	31.10
132.....	July 12	36,085	513.00	do	30.07
133.....	July 17	42,567	681.00	do	35.48
154.....	July 1	36,754	523.00	do	30.63
155.....	July 20	41,132	586.00	do	34.28
156.....	July 23	24,272	345.00	do	20.23
157.....	July 20	33,267	473.00	do	27.72
158.....	July 15	49,094	841.00	do	40.81
159.....	July 1	23,106	330.00	do	19.90

PORT OF KANSAS CITY, MO.—Continued.

Imports of ground wood pulp at Kansas City, Mo., January 1, 1907, to June 1, 1908—Continued.

C. E.	Date of arrival.	Quantity.	Appraised value.	County of origin.	Duties.
	1907.	<i>Pounds.</i>			
160	July 22	\$37,422	\$533.00	Chicoutimi, Quebec...	\$31.18
187	July 20	20,638	312.00	do	17.20
188	July 25	82,743	467.00	do	27.29
189	July 19	24,057	343.00	do	20.05
190	July 1	32,367	493.00	do	26.97
191	July 9	38,082	542.00	do	29.35
192	July 8	33,250	474.00	do	27.54
193	July 25	34,131	486.00	do	28.44
216	July 31	24,235	345.00	do	20.20
217	July 23	33,770	479.00	do	28.16
218	July 19	52,393	735.00	do	43.66
219	July 29	40,768	623.00	do	33.97
251	Aug. 2	38,265	545.00	do	31.89
252	July 25	30,409	467.00	do	25.34
253	do	37,902	530.00	do	31.69
254	July 31	33,275	474.00	do	27.73
255	Aug. 1	29,759	424.00	do	24.79
285	July 8	32,744	467.00	do	27.29
286	Aug. 9	48,068	685.00	do	40.05
287	Aug. 20	31,817	453.00	do	26.51
288	Aug. 6	36,790	524.00	do	30.66
321	July 20	38,089	543.00	do	31.74
322	July 25	32,725	466.00	do	27.10
323	Aug. 5	46,844	667.00	do	39.03
Total		3,167,760	45,586.00		2,637.05

No importation during the period from January 1, 1907, to June 1, 1908, of filter masse or filter stock under paragraph 395, nor printing paper under paragraph 396, nor pulp woods under paragraph 699 of the tariff act of 1897. No additional duties collected under the provisos of paragraphs 393 and 396.

PORT OF CHICAGO.

Statement showing date of arrival, quantity, appraised value and country of origin of the importations of the various kinds of wood pulp, filter masse or filter stock, printing paper and pulp woods, specified in paragraphs 393, 395, 396, and 699 of the tariff act of July 24, 1897, together with the duties collected thereon, at the port of Chicago for the period from January 1, 1907, to June 1, 1908.

PULP OF WOOD—CHEMICAL, UNBLEACHED.

[One-sixth of a cent per pound duty, dry weight, paragraph 393.]

[Date.	Country.	Quantity.	Value.	Ordinary duty.	Counter-vailing duty.	Total duty.
1907.		<i>Pounds.</i>				
Jan. 30	Canada	40,303	\$683.00	\$67.17	\$5.00	\$72.17
Feb. 10	do	81,960	1,429.00	136.60	10.00	146.60
Feb. 15	do	140,580	2,123.00	234.30	17.25	251.55
May 20	do	35,774	672.00	69.62	4.50	64.12
July 3	do	94,007	1,713.00	156.68	11.50	168.18
July 12	do	85,775	1,709.00	142.96	10.50	153.46
July 16	do	41,160	852.00	68.60	5.00	73.60
July 22	do	39,791	829.00	66.32	5.00	71.32
July 29	do	44,438	837.00	74.06	5.50	79.56
Aug. 7	do	45,006	838.00	75.01	5.50	80.51
Aug. 10	do	41,164	796.00	68.61	5.00	73.61
Aug. 13	do	40,793	813.00	67.99	5.00	72.99
Aug. 21	do	42,976	843.00	71.63	5.25	76.88
Sept. 9	do	81,485	1,592.00	135.81	10.00	145.81
Oct. 28	do	86,058	1,637.00	143.43	10.50	153.93
Nov. 4	do	69,513	1,327.00	115.85	8.50	124.35
Dec. 4	do	81,434	1,500.00	135.72	10.00	145.72
Dec. 4	do	87,352	1,574.00	145.59	10.75	156.34
Dec. 4	do	80,336	1,478.00	133.89	10.00	143.89
		1,259,905	23,745.00	2,099.84	154.75	2,254.59

PORT OF CHICAGO—Continued.

Statement showing date of arrival, quantity, appraised value and country of origin of the importations of the various kinds of wood pulp, filler masse or filler stock, printing paper and pulp woods, etc.—Continued.

FILTER MASSE.

[1½ cents per pound and 15 per cent ad valorem, paragraph 395.]

Date.	Country.	Quantity.	Value.	Duty.
1907.		<i>Pounds.</i>		
Feb. 4	Germany.....	1,102	\$124.00	\$35.12
May 7	do.....	7,055	826.00	229.72
May 16	do.....	4,409	524.00	144.74
July 22	do.....	2,513	318.00	85.40
Aug. 6	do.....	6,614	785.00	216.96
Aug. 17	do.....	992	155.00	38.12
Aug. 28	do.....	110	15.00	3.90
Sept. 21	do.....	4,409	524.00	144.74
Oct. 15	do.....	2,205	259.00	71.93
Nov. 11	do.....	5,612	659.00	181.53
1908.				
Apr. 25	do.....	1,102	170.00	42.03
Apr. 30	do.....	245	39.00	9.53
		35,268	4,398.00	1,203.75

PRINTING PAPER.

[Over 5 cents per pound, 15 per cent ad valorem, paragraph 396.]

1907.				
Apr. 6	France.....	4,032	\$763.00	\$114.45
July 3	England.....	1,620	82.00	12.30
Aug. 16	do.....	1,728	88.00	13.20
1908.				
Feb. 10	France.....	2,169	347.00	52.05
		9,549	1,280.00	192.00

PRINTING PAPER.

[Over 4 cents, not over 5 cents per pound, eight-tenths of a cent pound duty, paragraph 396.]

1907.				
July 3	England.....	216	\$10.00	\$1.73
Aug. 16	do.....	1,188	57.00	9.50
		1,404	67.00	11.23

PRINTING PAPER.

[Not over 2 cents per pound, three-tenths of a cent pound duty, paragraph 396.]

Date.	Country.	Quantity.	Value.	Ordinary duty.	Additional duty, section 32.	Total duty.
1907		<i>Pounds.</i>				
June 17	Canada.....	43,760	\$813.00	\$131.28	-----	\$131.28
Aug. 22	do.....	48,300	594.00	144.90	-----	144.90
Aug. 22	do.....	40,797	755.00	122.39	-----	122.39
Sept. 7	do.....	42,835	796.00	128.51	-----	128.51
Dec. 7	do.....	82,787	1,573.00	248.36	\$31.46	279.82
Dec. 7	do.....	35,027	666.00	105.08	13.32	118.40
Dec. 10	do.....	40,809	775.00	122.43	15.50	137.93
		334,315	6,272.00	1,002.95	60.28	1,063.23

PORT OF CHICAGO—Continued.

Statement showing date of arrival, quantity, appraised value and country of origin of the importations of the various kinds of wood pulp, filler masses or filler stock, printing paper and pulp woods, etc.—Continued.

PULP WOODS.

[Free of duty, paragraph 609.]

Date.	Country.	Quantity.	Value.
1907.		<i>Cords.</i>	
Jan. 11	Canada.....	451	\$1,353.00
Jan. 11	do.....	377	1,131.00
July 12	do.....	800	1,500.00
July 22	do.....	800	1,500.00
Aug. 13	do.....	480	1,350.00
Aug. 27	do.....	543	1,650.00
Nov. 14	do.....	600	1,800.00
		3,421	10,284.00

PORT OF MILWAUKEE.

Imported from January 1, 1907, to June 1, 1908.

UNBLEACHED WOOD PULP.

Date.	Quantity.	Appraised value.	Country of origin.	Duty.	Counter-vailing duty.
1907.	<i>Pounds.</i>				
May 10	41,858	\$783.00	Canada.....	\$69.76	\$5.17
10	42,285	809.00	do.....	70.48	5.21
18	30,840	737.00	do.....	66.40	4.92
23	77,983	1,418.00	do.....	129.98	9.62
23	39,352	786.00	do.....	65.59	4.86
23	43,565	809.00	do.....	72.61	5.38
June 1	47,970	894.00	do.....	79.95	5.92
1	44,232	859.00	do.....	73.72	5.46
1	43,172	875.00	do.....	71.95	5.33
8	48,645	988.00	do.....	81.08	6.00
29	46,639	942.00	do.....	77.24	5.71
29	46,728	949.00	do.....	77.68	5.77
July 11	43,019	864.00	do.....	71.70	5.21
11	45,476	916.00	do.....	75.79	5.61
13	44,916	906.00	do.....	74.86	5.55
13	46,344	924.00	do.....	77.24	5.72
24	42,713	838.00	do.....	71.19	5.27
Aug. 5	90,509	1,779.00	do.....	150.85	11.17
6	46,248	926.00	do.....	77.08	5.71
9	44,069	873.00	do.....	73.45	5.44
9	44,650	902.00	do.....	74.42	5.62
9	40,533	813.00	do.....	67.56	5.00
13	97,890	1,983.00	do.....	163.15	12.06
16	44,997	883.00	do.....	75.00	5.55
23	45,282	902.00	do.....	75.44	5.69
Sept. 6	90,059	1,797.00	do.....	150.10	11.10
6	39,319	793.00	do.....	65.53	4.85
9	32,156	641.00	do.....	53.60	2.96
16	42,212	841.00	do.....	70.35	5.21
20	86,902	1,674.00	do.....	144.84	10.71
20	44,465	869.00	do.....	74.11	5.40
20	44,707	904.00	do.....	74.51	5.62
27	41,751	850.00	do.....	69.59	5.15
27	42,588	855.00	do.....	70.98	5.26
Oct. 3	41,781	799.00	do.....	69.64	5.16
7	76,216	1,525.00	do.....	127.03	9.40
7	43,696	883.00	do.....	72.83	5.39
7	72,737	1,440.00	do.....	121.23	8.97
17	81,457	1,620.00	do.....	135.76	10.06
17	37,608	800.00	do.....	62.51	4.63
28	41,753	773.00	do.....	69.59	5.16
Nov. 3	35,628	708.00	do.....	59.38	4.40
9	41,627	839.00	do.....	69.38	5.14
14	77,752	1,527.00	do.....	129.59	9.68
17	41,720	834.00	do.....	69.54	5.14
21	35,164	714.00	do.....	58.61	4.34

PORT OF MILWAUKEE—Continued.

Imported from January 1, 1907, to June 1, 1908—Continued.

UNBLEACHED WOOD PULP—Continued.

Date.	Quantity.	Appraised value.	Country of origin.	Duty.	Counter-vailing duty.
1907.	<i>Pounds.</i>				
Nov. 22	40,971	\$815.00	Canada.....	\$83.29	\$5.05
Dec. 12	57,420	1,163.00	.....do.....	95.70	7.08
14	41,425	816.00	.....do.....	69.04	8.11
1908.					
May 18	42,682	768.00	.....do.....	71.14	8.27
28	37,350	676.00	.....do.....	62.25	4.61
	2,549,937	50,484.00		4,249.49	314.58

FILTER MASSE.

1907.					
Jan. 17	1,100	\$129.00	Germany.....	\$35.83	
Feb. 9	992	116.00	Holland.....	32.28	
Feb. 25	2,205	257.00	Germany.....	71.63	
Apr. 11	989	118.00	Holland.....	32.58	
Mar. 22	440	51.00	Germany.....	14.27	
Do....	660	77.00	.....do.....	21.47	
May 17	4,409	470.00	.....do.....	133.64	
June 6	1,980	236.00	Holland.....	65.16	
July 25	4,409	547.00	.....do.....	148.19	
July 29	1,984	231.00	.....do.....	64.41	
Mar. 25	1,102	129.00	Germany.....	35.88	
Sept. 4	4,009	474.00	.....do.....	137.23	
Oct. 5	1,984	231.00	Holland.....	64.41	
Dec. 20	1,984	231.00	.....do.....	64.41	
1908.					
Mar. 11	5,580	533.00	.....do.....	163.65	
May 25	5,496	533.00	Germany.....	162.63	
	39,323	4,343.00		1,247.72	

PRINTING PAPER.

1907.					
May 17	35,995	\$666.00	Canada.....	\$107.99	
Aug. 23	43,030	796.00	.....do.....	129.10	
	79,025	1,462.00		237.09	

No additional duty collected during the period from January 1, 1907, to June 1, 1908, on importations under paragraph 396 of the tariff act of 1897.

PEELED PULP WOOD.

1907.	<i>Cords.</i>				
June 16	985	\$4,925.00	Quebec.....		
June 22	595	3,220.00	.....do.....		
July 5	850	4,675.00	.....do.....		
July 30	990	5,445.00	.....do.....		
Aug. 3	700	3,850.00	.....do.....		
Aug. 7	850	4,675.00	.....do.....		
Sept. 2	700	4,200.00	.....do.....		
Sept. 9	940	5,170.00	.....do.....		
Sept. 16	690	3,745.00	.....do.....		
Sept. 21	1,100	6,000.00	.....do.....		
Oct. 15	1,125	6,187.50	.....do.....		
Oct. 18	940	5,170.00	.....do.....		
Oct. 19	360	1,680.00	.....do.....		
Nov. 5	755	4,152.50	.....do.....		
Do....	675	3,712.50	.....do.....		
	12,255	67,757.50			

PORT OF MARQUETTE, MICH.

Imports of wood pulp, print paper, and pulp wood, from Canada, received between January 1, 1907, and June 1, 1908.

WOOD PULP (MECHANICALLY GROUND.)

Date.	Quantity.	Value.	Rate of duty.	Duty collected.
1907.	Pounds.			
January 2.....	2,243,722	\$14,393.30	$\frac{1}{2}$ cent per pound....	\$1,869.78
January 3.....	1,426,248	9,850.11	do.....	1,188.55
January 8.....	943,068	6,013.79	do.....	785.89
January 10.....	627,113	4,302.44	do.....	522.59
January 11.....	640,674	4,138.65	do.....	533.89
January 14.....	649,983	4,391.72	do.....	541.66
January 15.....	466,535	3,060.26	do.....	388.79
January 16.....	425,145	2,810.27	do.....	354.28
January 17.....	314,252	2,111.43	do.....	261.87
January 18.....	110,273	162.32	do.....	91.90
January 21.....	1,277,624	8,327.44	do.....	1,064.67
January 22.....	287,120	1,722.72	do.....	239.27
January 25.....	313,128	2,348.46	do.....	290.94
January 28.....	916,414	5,763.41	do.....	763.69
February 1.....	2,342,747	15,056.31	do.....	1,952.29
February 5.....	894,486	5,821.19	do.....	745.81
February 6.....	117,645	882.34	do.....	98.04
February 8.....	132,049	990.37	do.....	110.04
February 11.....	1,744,963	10,843.62	do.....	1,454.14
February 12.....	497,147	3,207.12	do.....	408.29
February 14.....	265,584	1,991.88	do.....	221.32
February 15.....	238,707	1,643.91	do.....	198.42
February 18.....	431,740	3,072.27	do.....	350.79
February 19.....	562,288	3,373.12	do.....	468.49
February 20.....	383,750	2,595.03	do.....	319.82
February 21.....	410,388	3,077.91	do.....	341.08
February 23.....	1,488,511	9,975.90	do.....	1,240.43
March 1.....	578,239	4,039.09	do.....	481.87
March 4.....	750,494	5,443.71	do.....	625.39
March 5.....	413,127	2,478.75	do.....	344.27
March 6.....	638,368	4,341.58	do.....	534.48
March 7.....	218,496	1,639.72	do.....	182.08
March 8.....	170,338	1,277.54	do.....	141.95
March 11.....	610,720	4,244.02	do.....	508.94
March 12.....	548,321	3,745.98	do.....	450.93
March 14.....	366,828	2,751.22	do.....	305.69
March 18.....	462,271	3,505.68	do.....	385.23
March 19.....	163,093	1,195.70	do.....	135.92
March 20.....	132,264	991.98	do.....	110.22
March 22.....	199,949	1,449.77	do.....	166.64
March 23.....	616,533	4,551.25	do.....	513.77
March 26.....	127,532	936.49	do.....	106.28
March 27.....	182,601	1,369.51	do.....	152.17
March 28.....	184,133	1,381.15	do.....	153.46
April 1.....	194,942	1,462.07	do.....	162.45
April 2.....	554,048	4,155.36	do.....	461.70
April 3.....	209,611	1,572.08	do.....	174.67
April 4.....	219,845	1,648.84	do.....	183.20
April 5.....	219,520	1,646.40	do.....	182.93
April 8.....	439,763	3,296.21	do.....	396.46
April 9.....	180,337	1,332.53	do.....	150.28
April 10.....	185,592	1,391.94	do.....	154.66
April 11.....	289,199	2,100.06	do.....	241.00
April 12.....	242,569	1,819.27	do.....	202.14
April 13.....	209,666	1,572.50	do.....	174.72
April 15.....	435,288	3,190.51	do.....	362.75
April 17.....	216,698	1,625.23	do.....	180.58
April 18.....	209,380	1,570.35	do.....	174.49
April 19.....	193,735	1,453.01	do.....	161.45
April 22.....	444,645	3,334.95	do.....	370.55
April 23.....	182,364	1,367.73	do.....	151.97
April 24.....	217,158	1,626.68	do.....	180.97
April 25.....	125,739	754.43	do.....	104.78
April 26.....	97,504	585.01	do.....	81.25
May 1.....	850,891	5,395.18	do.....	709.07
May 3.....	363,264	2,179.58	do.....	262.72
May 6.....	441,530	2,649.17	do.....	367.94
May 7.....	312,584	1,873.49	do.....	260.49
May 10.....	616,793	4,242.83	do.....	513.99
May 13.....	360,492	2,305.95	do.....	300.41
May 14.....	215,491	1,440.51	do.....	179.58
May 15.....	401,629	2,774.88	do.....	334.77
May 16.....	151,705	910.22	do.....	126.42
May 17.....	283,214	2,020.16	do.....	236.01
May 20.....	241,466	1,580.44	do.....	201.22
May 21.....	155,047	920.29	do.....	129.21

PORT OF MARQUETTE, MICH.—Continued.

Imports of wood pulp, print paper, and pulp wood, from Canada, received between January 1, 1907, and June 1, 1908—Continued.

WOOD PULP (MECHANICALLY GROUND)—Continued.

Date.	Quantity.	Value.	Rate of duty.	Duty collected.
1907.	Pounds.			
May 22.....	883,541	\$2,739.27	1½ cent per pound.....	\$319.61
May 23.....	18,143	208.64	do.....	15.12
May 24.....	107,544	867.52	do.....	80.62
May 27.....	23,196	301.58	do.....	19.33
June 3.....	419,388	3,251.28	do.....	349.49
June 4.....	102,031	765.23	do.....	85.03
June 5.....	683,017	4,637.27	do.....	569.18
June 6.....	84,256	631.92	do.....	70.21
June 10.....	161,311	1,613.21	do.....	134.41
June 12.....	19,448	243.10	do.....	16.21
June 13.....	19,565	244.56	do.....	16.30
June 18.....	191,864	2,064.15	do.....	159.99
June 19.....	38,854	233.12	do.....	32.38
June 21.....	294,243	1,765.45	do.....	245.20
June 26.....	121,996	914.97	do.....	101.66
June 27.....	61,542	461.56	do.....	51.29
July 1.....	1,107,473	6,964.21	do.....	922.41
July 2.....	126,266	1,644.15	do.....	188.56
July 3.....	185,354	1,112.12	do.....	154.46
July 5.....	110,498	5,462.95	do.....	758.75
July 8.....	379,348	2,368.85	do.....	316.13
July 9.....	623,506	3,783.99	do.....	524.59
July 10.....	523,105	3,136.62	do.....	435.93
July 11.....	80,527	851.35	do.....	67.11
July 12.....	228,538	1,371.22	do.....	190.45
July 15.....	643,049	3,540.19	do.....	555.88
July 16.....	511,119	3,361.88	do.....	425.94
July 18.....	299,601	1,767.80	do.....	249.67
July 19.....	221,404	1,640.54	do.....	184.51
July 22.....	867,117	5,213.50	do.....	724.11
July 23.....	1,435,421	9,221.04	do.....	1,196.19
July 24.....	481,627	3,180.84	do.....	401.36
July 25.....	180,248	1,351.86	do.....	150.21
July 26.....	158,213	1,186.59	do.....	131.84
July 29.....	1,016,438	6,236.22	do.....	847.03
August 1.....	1,762,473	11,315.60	do.....	1,410.39
August 2.....	315,388	1,970.58	do.....	262.82
August 5.....	1,581,444	10,358.50	do.....	1,317.88
August 6.....	264,281	1,585.48	do.....	220.23
August 7.....	159,508	1,196.31	do.....	132.92
August 9.....	428,158	3,211.18	do.....	356.90
August 12.....	557,016	3,212.64	do.....	464.18
August 13.....	469,779	3,093.03	do.....	391.48
August 14.....	2,361,677	14,925.61	do.....	1,918.06
August 15.....	200,437	1,563.24	do.....	167.03
August 16.....	580,189	3,821.89	do.....	483.49
August 19.....	619,916	4,073.29	do.....	516.00
August 20.....	147,425	1,105.69	do.....	122.85
August 21.....	419,710	2,577.59	do.....	349.76
August 22.....	922,389	6,099.06	do.....	768.06
August 23.....	1,007,442	6,457.19	do.....	839.53
August 26.....	1,050,857	6,840.22	do.....	875.72
August 27.....	234,617	1,347.70	do.....	187.18
August 28.....	550,336	3,574.51	do.....	478.62
September 3.....	2,171,750	14,488.59	do.....	1,809.74
September 4.....	852,829	5,319.84	do.....	710.66
September 5.....	187,699	1,407.74	do.....	156.46
September 6.....	494,906	3,240.03	do.....	412.43
September 9.....	505,588	3,424.14	do.....	421.53
September 10.....	546,223	3,277.34	do.....	455.19
September 11.....	231,642	1,763.58	do.....	193.04
September 12.....	1,989,695	12,847.59	do.....	1,658.06
September 13.....	1,283,688	8,580.19	do.....	1,069.92
September 18.....	571,013	3,706.39	do.....	473.85
September 19.....	756,109	5,362.13	do.....	638.43
September 20.....	231,393	1,748.75	do.....	192.75
September 23.....	1,484,231	9,495.38	do.....	1,207.07
September 24.....	649,472	4,188.11	do.....	541.22
September 25.....	181,293	1,359.02	do.....	151.00
September 27.....	1,849,548	12,483.16	do.....	1,541.30
October 1.....	384,615	2,364.79	do.....	320.52
October 3.....	788,858	5,291.83	do.....	657.36
October 4.....	422,629	2,799.79	do.....	352.19
October 7.....	541,894	3,647.47	do.....	451.39
October 8.....	1,003,257	6,079.63	do.....	826.04
October 9.....	781,637	5,356.40	do.....	651.39

PORT OF MARQUETTE, MICH.—Continued.

Imports of wood pulp, print paper, and pulp wood, from Canada, received between January 1, 1907, and June 1, 1908—Continued.

WOOD PULP (MECHANICALLY GROUND)—Continued.

Date.	Quantity.	Value.	Rate of duty.	Duty collected.
1907.	Pounds.			
October 10.....	292,840	\$1,757.04	$\frac{1}{2}$ cent per pound.....	\$244.08
October 11.....	182,466	1,348.50	do.....	152.08
October 14.....	1,713,144	11,127.57	do.....	1,428.04
October 15.....	571,744	3,720.21	do.....	476.45
October 16.....	270,064	2,007.11	do.....	225.05
October 21.....	1,425,822	9,203.68	do.....	1,188.19
October 22.....	82,703	496.76	do.....	69.00
October 23.....	1,920,398	12,668.35	do.....	1,600.35
October 24.....	215,070	1,613.03	do.....	179.23
October 25.....	210,871	1,581.53	do.....	175.73
October 28.....	362,383	2,174.29	do.....	301.99
October 29.....	333,555	2,513.38	do.....	277.96
November 4.....	1,870,626	12,160.07	do.....	1,558.85
November 5.....	1,138,803	10,699.41	do.....	1,345.67
November 6.....	842,898	5,350.14	do.....	702.41
November 8.....	1,775,682	11,908.14	do.....	1,479.73
November 11.....	697,798	4,797.40	do.....	581.50
November 12.....	929,888	5,908.91	do.....	774.92
November 13.....	205,849	1,543.87	do.....	171.54
November 14.....	211,723	1,587.92	do.....	176.44
November 15.....	649,652	4,195.22	do.....	541.38
November 18.....	612,749	4,269.26	do.....	500.63
November 19.....	924,452	5,857.47	do.....	770.39
November 20.....	192,500	1,443.75	do.....	160.42
November 21.....	217,437	1,630.78	do.....	181.20
November 22.....	674,074	4,381.70	do.....	561.72
November 25.....	388,208	2,671.07	do.....	323.53
November 26.....	609,492	4,371.79	do.....	507.91
November 27.....	546,016	3,614.37	do.....	455.02
November 29.....	600,455	4,249.75	do.....	500.38
December 2.....	695,253	4,257.69	do.....	579.37
December 3.....	318,245	2,191.61	do.....	265.20
December 4.....	243,695	1,827.71	do.....	203.06
December 5.....	209,102	1,568.27	do.....	174.25
December 6.....	284,949	2,088.45	do.....	237.46
December 9.....	678,518	4,717.09	do.....	565.27
December 10.....	375,110	2,599.44	do.....	312.69
December 11.....	211,844	1,589.13	do.....	176.57
December 12.....	339,081	2,283.45	do.....	282.56
December 13.....	310,607	2,163.75	do.....	258.84
December 16.....	790,037	5,326.30	do.....	658.38
December 17.....	237,584	1,781.88	do.....	197.99
December 18.....	189,401	1,420.51	do.....	157.83
December 19.....	578,537	3,774.66	do.....	462.11
December 20.....	297,876	2,061.82	do.....	248.24
December 23.....	759,621	5,095.37	do.....	633.01
December 24.....	502,042	3,448.13	do.....	433.38
December 26.....	747,758	5,012.52	do.....	623.14
December 30.....	360,977	2,707.35	do.....	300.82
Total amounts, year 1907.....	109,491,347	729,261.54		91,323.97
1908.				
January 2.....	417,599	\$,131.99	$\frac{1}{2}$ cent per pound.....	348.00
January 3.....	331,614	1,989.69	do.....	276.35
January 6.....	1,441,728	9,461.35	do.....	1,201.43
January 7.....	573,134	4,020.46	do.....	477.61
January 8.....	544,043	3,753.33	do.....	453.38
January 10.....	308,927	2,184.59	do.....	257.44
January 13.....	769,718	5,112.33	do.....	641.42
January 15.....	567,148	3,988.59	do.....	472.63
January 16.....	549,851	3,573.82	do.....	458.21
January 17.....	165,214	1,239.11	do.....	137.68
January 20.....	519,880	3,402.30	do.....	433.22
January 21.....	190,134	2,471.74	do.....	158.45
January 22.....	881,863	6,061.96	do.....	734.89
January 23.....	194,852	1,461.39	do.....	195.70
January 27.....	1,905,847	15,159.73	do.....	1,588.22
January 30.....	307,069	1,842.41	do.....	255.89
February 3.....	1,113,739	7,693.77	do.....	933.12
February 4.....	1,367,011	9,137.05	do.....	1,139.18
February 5.....	556,096	3,671.78	do.....	463.43
February 6.....	233,044	1,792.83	do.....	199.20
February 7.....	140,604	1,054.53	do.....	117.17
February 10.....	564,272	5,311.42	do.....	470.23
February 11.....	404,983	2,783.11	do.....	337.48

PORT OF MARQUETTE, MICH.—Continued.

Imports of wood pulp, print paper, and pulp wood, from Canada, received between January 1, 1907, and June 1, 1908—Continued.

WOOD PULP (MECHANICALLY GROUND)—Continued.

Date.	Quantity.	Value.	Rate of duty.	Duty collected.
1908.				
	<i>Pounds.</i>			
February 12.....	426,148	\$2,894.50	$\frac{1}{4}$ cent per pound.....	\$355.12
February 13.....	826,839	5,767.05	do.....	689.04
February 14.....	174,332	1,307.49	do.....	145.28
February 17.....	818,464	5,473.39	do.....	682.06
February 18.....	209,580	1,571.85	do.....	174.65
February 19.....	195,327	1,171.06	do.....	162.07
February 20.....	264,789	1,985.92	do.....	220.66
February 21.....	192,640	1,155.84	do.....	180.53
February 24.....	1,904,765	14,191.68	do.....	1,587.32
February 25.....	380,982	2,636.63	do.....	317.49
February 26.....	265,577	1,763.78	do.....	221.32
February 28.....	299,478	2,072.98	do.....	249.57
March 2.....	458,703	3,003.40	do.....	382.25
March 3.....	941,805	6,163.86	do.....	784.84
March 4.....	153,229	1,149.12	do.....	127.69
March 5.....	181,400	1,360.50	do.....	151.17
March 9.....	1,306,331	8,650.56	do.....	1,068.61
March 10.....	461,720	2,947.81	do.....	364.76
March 12.....	518,422	3,888.17	do.....	432.02
March 13.....	204,035	1,530.26	do.....	170.08
March 16.....	929,740	6,074.02	do.....	774.79
March 17.....	210,122	1,260.73	do.....	175.10
March 18.....	386,297	2,897.23	do.....	321.91
March 19.....	249,204	1,699.22	do.....	207.61
March 20.....	139,326	1,044.95	do.....	116.11
March 23.....	248,543	1,809.39	do.....	197.14
March 25.....	323,988	2,215.01	do.....	269.98
March 27.....	161,600	1,211.90	do.....	134.67
March 30.....	385,778	2,690.06	do.....	321.49
April 1.....	171,676	1,218.41	do.....	143.06
April 2.....	212,256	1,476.45	do.....	178.88
April 3.....	136,106	1,030.80	do.....	113.42
April 6.....	125,544	814.80	do.....	104.62
April 7.....	165,462	1,124.79	do.....	137.90
April 8.....	105,641	792.31	do.....	88.04
April 9.....	128,954	773.73	do.....	107.46
April 13.....	152,169	913.61	do.....	126.81
April 15.....	90,388	1,623.12	do.....	75.32
April 17.....	239,168	1,503.95	do.....	190.31
April 20.....	217,917	1,518.41	do.....	181.60
April 21.....	76,126	456.75	do.....	63.44
April 22.....	168,136	1,261.02	do.....	140.11
April 23.....	185,550	1,391.63	do.....	154.68
April 24.....	136,897	1,026.73	do.....	114.08
April 27.....	242,606	1,760.43	do.....	202.17
April 29.....	226,938	1,702.04	do.....	189.12
May 1.....	160,347	1,202.60	do.....	133.63
May 4.....	108,490	813.68	do.....	90.41
May 6.....	243,961	1,829.72	do.....	203.30
May 8.....	43,729	327.97	do.....	36.44
May 11.....	272,664	1,846.70	do.....	227.22
May 13.....	359,230	2,517.32	do.....	299.37
May 15.....	191,417	1,478.61	do.....	159.52
May 18.....	326,409	2,695.43	do.....	272.01
May 19.....	133,982	1,138.45	do.....	111.68
May 22.....	210,179	1,671.89	do.....	167.66
May 25.....	260,081	2,072.29	do.....	216.74
May 28.....	128,953	1,096.10	do.....	107.46
Total for first 5 months, 1908.....	32,060,506	230,927.78		26,398.98
Grand total.....	141,551,853	960,189.32		117,722.95

WOOD PULP (CHEMICAL UNBLEACHED).

1907.				
July 22.....	82,618	\$1,459.85	$\frac{1}{4}$ cent per pound.....	\$137.70
August 12.....	27,921	457.20	do.....	46.83
August 14.....	22,954	400.97	do.....	38.28
Total.....	133,493	2,318.02		222.81

PORT OF MARQUETTE, MICH.—Continued.

Imports of wood pulp, print paper, and pulp wood, from Canada, received between January 1, 1907, and June 1, 1908—Continued.

ADDITIONAL DUTIES COLLECTED, WOOD PULP FROM CANADA.

1907.			
January 8.....			\$0.22
June 7.....			.40
Do.....			.55
June 10.....			8.95
Do.....			1.84
June 19.....			1.33
November 6.....			1.85
Total for 1907.....			10.14
1908.			
January 10.....			8.83
March 2.....			6.67
April 16.....			86.47
Total for 5 months, 1908.....			107.11
Grand total.....			117.25

Between January 1, 1907, and June 1, 1908, there was but one importation into Marquette, Mich., of print paper—June 11, 1907, print paper, 29,112 pounds; value, \$506.81; duty, \$87.34.

No importations of pulp wood from November 21, 1907, to July 1, 1908.

No importations of filter masse or filter stock during the period from January 1, 1907, to June 1, 1908.

PULP WOOD FROM CANADA (FREE).

Date.	Quantity.	Value.	Date.	Quantity.	Value.
1907.					
May 22.....	<i>Cords.</i> 2,000	\$10,000.00	August 23.....	<i>Cords.</i> 1,287	\$3,240.00
May 27.....	10	30.00	August 27.....	70	385.00
June 3.....	280	1,110.00	September 3.....	20	110.00
June 5.....	944	4,720.00	September 5.....	50	275.00
June 6.....	10	30.00	September 6.....	810	3,255.00
June 10.....	280	1,110.00	September 9.....	200	1,000.00
June 13.....	233	990.00	September 10.....	20	110.00
June 17.....	10	30.00	September 12.....	30	165.00
June 21.....	30	90.00	September 13.....	810	1,555.00
June 24.....	3,000	15,000.00	September 16.....	50	275.00
June 25.....	10	30.00	September 17.....	1,500	7,500.00
June 26.....	500	2,000.00	September 18.....	10	55.00
July 1.....	1,200	4,800.00	September 20.....	50	325.00
July 2.....	260	980.00	September 23.....	1,230	4,935.00
July 3.....	235	961.00	September 24.....	30	165.00
July 8.....	1,043	4,250.00	September 26.....	20	110.00
July 9.....	2,700	13,500.00	September 27.....	100	550.00
July 10.....	1,600	6,400.00	October 1.....	110	605.00
July 11.....	721	3,135.00	October 2.....	20	110.00
July 12.....	76	474.00	October 3.....	80	440.00
July 15.....	10	55.00	October 7.....	30	165.00
July 18.....	10	55.00	October 8.....	130	715.00
July 22.....	10	55.00	October 11.....	30	165.00
July 23.....	20	105.00	October 14.....	20	110.00
July 28.....	30	165.00	October 15.....	2,000	10,000.00
July 29.....	19	100.00	October 16.....	20	110.00
August 1.....	10	55.00	October 17.....	160	880.00
August 2.....	50	275.00	October 21.....	30	165.00
August 5.....	5,625	28,125.00	October 22.....	130	665.00
August 6.....	135	737.00	October 23.....	70	385.00
August 7.....	345	1,727.00	October 28.....	140	770.00
August 8.....	90	565.00	November 2.....	20	110.00
August 12.....	10	55.00	November 30.....	10	55.00
August 13.....	30	165.00	November 21.....	10	55.00
August 19.....	20	110.00			
August 21.....	750	4,500.00	Total amounts pulp-wood, 1907.....	31,333	146,089.00
August 22.....	10	55.00			

PORT OF PORT HURON, MICH.

Record of mechanically ground wood pulp imported from Canada from January 1, 1907, to June 1, 1908.

Date.	Quantity.	Value.	Duty.	Counter-vailing duty.	Total duty.
1907.	<i>Pounds.</i>				
January 4.....	20,200	\$110.00	\$16.83	\$2.53	\$19.36
January 5.....	26,380	148.00	21.98	3.30	25.28
January 19.....	28,800	161.00	24.00	3.60	27.60
	75,380	419.00	62.81	9.43	72.24
February 11.....	30,500	191.00	25.42	3.81	29.23
February 15.....	30,612	172.00	25.51	3.83	29.34
February 20.....	30,300	170.00	25.25	3.79	29.04
February 21.....	51,410	288.00	42.85	1.47	44.32
	142,822	821.00	119.03	12.90	131.93
March 7.....	90,780	772.00	75.85	11.35	87.00
March 12.....	39,205	135.00	32.67	.....	32.67
March 14.....	27,056	90.00	22.55	.....	22.55
March 15.....	51,626	180.00	43.02	.....	43.02
March 25.....	40,812	135.00	34.01	.....	34.01
March 28.....	41,630	236.00	34.69	5.20	39.89
Do.....	50,920	278.00	42.45	6.36	48.81
	342,029	1,826.00	285.04	22.91	307.95
April 2.....	60,780	246.00	50.65	7.60	58.25
	20,940	119.00	17.45	2.63	20.08
April 4.....	20,496	115.00	17.08	.....	17.08
April 5.....	30,730	175.00	25.61	3.84	29.45
April 6.....	31,592	101.00	26.33	.....	26.33
April 8.....	30,760	173.00	25.63	.....	25.63
Do.....	89,210	809.00	74.34	.....	74.34
April 11.....	51,210	292.00	42.68	.....	42.68
April 13.....	45,600	342.00	38.00	5.70	43.70
	45,600	342.00	38.00	5.70	43.70
April 15.....	58,650	334.00	48.88	7.33	56.21
Do.....	66,780	401.00	55.65	8.35	64.00
	20,000	109.00	16.67	2.50	19.17
	61,440	389.00	51.20	7.68	58.88
April 17.....	24,000	180.00	20.00	3.00	23.00
April 18.....	41,050	231.00	34.21	5.13	39.34
April 20.....	60,530	351.00	50.44	7.57	58.01
April 22.....	80,400	176.00	25.33	.....	25.33
	40,775	245.00	33.98	5.10	39.08
	60,710	364.00	50.59	7.59	58.18
	20,480	123.00	17.07	2.56	19.63
	30,750	175.00	25.02	3.85	29.47
	22,800	171.00	19.00	2.85	21.85
	30,000	150.00	25.00	3.75	28.75
April 23.....	20,420	123.00	17.02	2.53	19.55
	22,800	171.00	19.00	2.85	21.85
	25,160	146.00	20.97	3.15	24.12
April 27.....	51,680	310.00	43.07	6.46	49.53
	58,280	630.00	48.57	.....	48.57
April 29.....	25,960	156.00	21.64	3.24	24.88
	71,640	416.00	59.70	8.96	68.66
	65,130	352.00	54.29	.....	54.29
	75,600	855.00	63.00	.....	63.00
	1,411,953	8,952.00	1,176.67	119.92	1,296.59
May 2.....	30,230	175.00	25.17	3.79	28.96
May 4.....	46,880	272.00	39.07	5.86	44.93
May 6.....	91,020	528.00	75.85	11.38	87.23
	89,620	520.00	74.69	11.19	85.88
	50,448	243.00	42.04	.....	42.04
	90,685	528.00	75.58	.....	75.58
May 7.....	51,125	269.00	42.60	.....	42.60
	30,400	228.00	25.33	.....	25.33
	30,440	117.00	25.37	.....	25.37
May 9.....	138,180	792.00	115.15	.....	115.15
May 10.....	24,840	269.00	20.70	.....	20.70
May 11.....	25,320	146.00	21.10	3.17	24.27
May 13.....	37,800	339.00	31.50	.....	31.50
	45,270	263.00	37.73	.....	37.73
May 14.....	36,590	177.00	25.49	3.82	29.31
May 17.....	21,120	122.00	17.60	2.64	20.24
	30,610	177.00	25.51	.....	25.51
	61,040	364.00	50.87	7.63	58.50

PORT OF PORT HURON, MICH.—Continued.

Record of mechanically ground wood pulp imported from Canada from January 1, 1907,
to June 1, 1908—Continued.

Date.	Quantity.	Value.	Duty.	Counter- vailing duty.	Total duty.
	<i>Pounds.</i>				
1907.					
May 20.....	30,252	\$174.00	\$25.21	\$3.78	\$28.99
	30,380	170.00	25.32	3.80	29.12
	25,303	147.00	21.09		21.09
	52,182	634.00	43.48		43.48
May 21.....	19,200	144.00	16.00		16.00
	24,440	86.00	20.37		20.37
	30,410	176.00	25.34		25.34
May 23.....	30,290	176.00	25.25	3.78	29.03
	30,290	177.00	25.24		25.24
	30,400	228.00	25.33		25.33
May 24.....	81,380	472.00	67.82		67.82
	60,680	353.00	50.73		50.73
	30,400	228.00	25.33		25.33
	20,600	119.00	17.17	2.58	19.75
	25,750	149.00	21.46	3.22	24.68
May 27.....	30,400	171.00	25.33		25.33
	30,580	177.00	25.48		25.48
	51,565	294.00	42.83	6.59	49.42
May 28.....	21,712	261.00	18.09		18.09
May 31.....	55,685	323.00	46.40	6.96	53.36
	1,637,527	10,250.00	1,364.62	82.19	1,446.81
June 1.....	21,744	179.00	18.12		18.12
	22,800	171.00	19.00		19.00
	120,850	701.00	100.71	15.11	115.82
June 3.....	30,620	178.00	25.54	3.83	29.37
	36,885	302.00	30.57	2.64	33.21
	52,640	594.00	48.87		48.87
	24,872	205.00	20.73		20.73
June 4.....	31,040	180.00	25.88		25.88
	23,314	192.00	19.43		19.43
	25,394	210.00	21.16		21.16
June 5.....	27,518	227.00	22.93		22.93
	21,412	257.00	17.84		17.84
	50,770	294.00	42.31		42.31
	28,620	166.00	23.85		23.85
June 6.....	28,690	172.00	24.74		24.74
June 7.....	30,370	171.00	21.21	3.79	25.00
June 8.....	25,450	147.00	21.21		21.21
June 10.....	67,200	654.00	56.00		56.00
	43,400	358.00	36.17		36.17
	30,290	176.00	25.24		25.24
	41,341	240.00	34.45		34.45
June 11.....	103,217	598.00	86.01		86.01
	51,030	296.00	42.53	6.38	48.91
	32,886	296.00	27.41		27.41
	42,120	498.00	35.10		35.10
	21,520	258.00	17.83		17.83
	58,750	341.00	48.96	7.34	56.30
June 13.....	30,840	173.00	25.70	3.86	29.56
	22,208	183.00	18.51		18.51
	21,208	175.00	17.67		17.67
June 14.....	30,240	170.00	25.22	3.78	29.00
	61,709	609.00	51.42		51.42
	20,908	172.00	17.34		17.34
June 15.....	28,530	164.00	23.78	3.57	27.35
June 17.....	21,412	257.00	17.84		17.84
June 18.....	51,250	297.00	42.71	6.41	49.12
June 19.....	30,600	177.00	25.50		25.50
June 21.....	30,200	175.00	25.17	3.78	28.95
June 22.....	28,240	158.00	23.53		23.53
	84,395	490.00	70.33		70.33
	20,240	118.00	16.87		16.87
	59,390	345.00	49.49	7.42	56.91
June 24.....	62,400	302.00	52.00		52.00
	30,500	177.00	25.42		25.42
	30,630	178.00	25.53		25.53
	54,061	314.00	45.05		45.05
June 25.....	33,400	434.00	27.83		27.83
	32,754	270.00	27.30		27.30
	30,480	177.00	25.40		25.40
	60,940	354.00	50.78		50.78
	25,610	148.00	21.34		21.34
June 26.....	23,080	273.00	19.23		19.23
	33,252	274.00	27.71		27.71
	35,016	289.00	29.20		29.20

PORT OF PORT HURON, MICH.—Continued.

Record of mechanically ground wood pulp imported from Canada from January 1, 1907,
to June 1, 1908—Continued.

Data.	Quantity.	Value.	Duty.	Counter- vailing duty.	Total duty.
1907.					
	<i>Pounds.</i>				
June 27.....	54,412	\$316.00	\$45.34	.....	\$45.34
	34,446	413.00	28.71	.....	28.71
June 28.....	60,800	353.00	50.72	.....	50.72
	184,680	2,182.00	153.90	.....	153.90
	65,738	542.00	54.78	.....	54.78
June 28.....	34,494	285.00	28.75	.....	28.75
	41,250	239.00	34.38	.....	34.48
	2,564,978	19,065.00	2,137.45	\$67.91	2,205.36
July 1.....	34,286	283.00	28.61	.....	28.61
	30,730	172.00	25.61	.....	25.61
	60,550	351.00	50.46	.....	50.46
	30,350	176.00	25.29	.....	25.29
July 3.....	21,796	180.00	18.16	.....	18.16
July 5.....	32,748	270.00	27.29	.....	27.29
	50,945	296.00	42.46	.....	42.46
	22,212	267.00	18.51	.....	18.51
	30,670	178.00	25.56	.....	25.56
July 8.....	51,220	297.00	42.68	.....	42.68
	25,290	147.00	21.08	.....	21.08
	88,031	511.00	73.36	.....	73.36
July 10.....	30,590	172.00	25.49	.....	25.49
July 11.....	28,150	166.00	23.88	.....	23.88
	88,030	499.00	71.69	.....	71.69
July 12.....	96,068	432.00	80.06	.....	80.06
	20,970	122.00	17.48	.....	17.48
	61,020	384.00	50.85	.....	50.85
July 13.....	56,125	326.00	46.77	.....	46.77
	30,450	192.00	25.38	3.81	29.19
	51,970	343.00	43.31	.....	43.31
July 15.....	112,340	708.00	93.61	14.05	107.66
	60,780	353.00	50.65	.....	50.65
	32,940	272.00	27.45	.....	27.45
July 17.....	25,330	160.00	21.11	3.17	24.28
July 18.....	30,380	191.00	25.32	3.80	29.12
	30,580	194.00	25.48	3.83	29.31
July 19.....	55,950	342.00	46.13	7.00	53.13
July 20.....	30,400	192.00	25.40	3.81	29.21
July 22.....	122,131	768.00	101.70	15.24	116.94
July 24.....	55,300	348.00	46.06	6.92	53.00
July 27.....	60,060	378.00	50.05	7.51	57.56
	60,750	342.00	50.62	7.60	58.22
	1,617,622	10,042.00	1,348.08	76.74	1,424.82
August 1.....	30,412	192.00	25.34	3.80	29.14
August 3.....	50,710	320.00	42.26	6.34	48.60
August 5.....	112,280	713.00	93.57	14.04	107.61
	25,765	162.00	21.47	3.22	24.69
August 7.....	83,260	515.00	69.38	10.41	79.79
August 8.....	30,490	192.00	25.41	3.81	29.22
August 10.....	50,135	319.00	42.19	6.33	48.52
	60,440	381.00	50.37	7.56	57.93
	27,370	173.00	22.81	3.41	26.22
August 12.....	30,210	190.00	25.18	3.78	28.96
	60,590	382.00	50.50	7.56	58.06
August 14.....	30,410	192.00	25.34	3.81	29.15
August 16.....	57,640	363.00	48.03	7.21	55.24
	30,750	173.00	25.62	3.86	29.48
August 17.....	61,380	388.00	51.15	7.67	58.82
August 19.....	30,360	191.00	25.30	3.80	29.10
August 24.....	60,750	383.00	50.62	7.60	58.22
August 26.....	20,340	128.00	16.95	2.54	19.49
	51,110	322.00	42.59	6.39	48.98
	30,560	193.00	25.47	3.82	29.29
August 28.....	58,568	369.00	48.81	7.32	56.13
	30,460	192.00	25.40	3.79	29.19
	60,550	382.00	50.46	7.57	58.03
August 29.....	28,100	180.00	23.63	3.58	27.41
August 31.....	30,580	193.00	25.48	3.82	29.30
	1,144,220	7,188.00	953.53	143.04	1,096.57

PORT OF PORT HURON, MICH.—Continued.

Record of mechanically ground wood pulp imported from Canada from January 1, 1907, to June 1, 1908—Continued.

Data.	Quantity.	Value.	Duty.	Counter- vailing duty.	Total duty.
1907.					
	<i>Pounds.</i>				
September 3.....	97,130	\$612.00	\$80.94	\$12.14	\$93.08
September 4.....	50,757	320.00	42.31	6.35	48.66
	82,720	521.00	68.93	10.34	79.27
	51,135	322.00	42.61	6.39	49.00
September 5.....	30,308	191.00	25.26	3.79	29.05
	30,625	193.00	25.52	3.83	29.35
	25,710	162.00	21.43	3.21	24.64
	31,140	196.00	25.95	3.89	29.84
September 6.....	60,637	384.00	50.53	7.58	58.11
	96,790	610.00	80.66	12.10	92.76
September 7.....	61,580	388.00	51.33	7.69	59.02
September 9.....	58,670	330.00	48.89	7.38	56.27
	105,760	666.00	88.13	13.22	101.35
	90,470	560.00	75.39	11.31	86.70
September 11.....	30,621	172.00	25.52	3.84	29.36
September 12.....	30,490	192.00	25.41	3.81	29.22
	30,508	172.00	25.42	3.81	29.23
	30,600	193.00	25.60	3.83	29.33
September 14.....	68,120	429.00	56.77	8.52	65.29
September 18.....	21,360	214.00	17.80	2.67	20.47
September 19.....	61,635	388.00	51.36	7.70	59.06
	109,095	1,091.00	90.91	13.64	104.55
September 20.....	61,110	385.00	50.93	7.64	58.57
	40,780	257.00	33.08	5.10	38.08
	30,300	303.00	25.25	3.79	29.04
September 21.....	20,620	130.00	17.18	2.58	19.76
	66,360	329.00	55.29	8.30	63.59
September 23.....	92,750	584.00	77.29	11.59	88.88
	99,960	630.00	83.30	12.50	95.80
September 25.....	40,900	258.00	34.08	5.11	39.19
September 26.....	55,900	335.00	46.58	.....	46.58
	40,180	253.00	33.48	5.02	38.50
	60,330	603.00	60.28	7.54	67.82
September 27.....	30,485	176.00	25.42	3.81	29.23
	21,240	135.00	17.70	2.66	20.36
	102,092	1,021.00	85.06	12.78	97.84
September 28.....	21,120	119.00	17.60	2.64	20.24
September 30.....	154,630	974.00	128.87	19.33	148.20
	26,030	260.00	21.09	3.25	24.34
	2,220,658	24,058.00	1,860.55	270.63	2,121.18
October 2.....	29,580	185.00	24.66	3.69	28.35
October 4.....	30,630	193.00	25.53	3.83	29.36
	31,195	197.00	26.00	3.90	29.90
October 5.....	51,925	328.00	43.28	6.49	49.77
October 7.....	31,147	196.00	25.96	3.89	29.85
	30,265	191.00	25.21	3.79	29.00
October 10.....	69,740	439.00	58.15	8.69	66.84
October 11.....	25,700	152.00	21.42	3.21	24.63
October 14.....	38,510	230.00	30.43	4.56	34.99
October 16.....	62,350	361.00	51.96	7.79	59.75
October 21.....	60,530	381.00	50.44	7.57	58.01
October 22.....	25,694	308.00	21.41	.....	21.41
October 23.....	71,180	448.00	59.32	8.90	68.22
	61,700	360.00	51.42	7.71	59.13
October 24.....	20,490	129.00	17.08	2.56	19.64
October 26.....	60,360	380.00	50.30	7.55	57.85
October 28.....	20,780	131.00	17.32	2.60	19.92
	719,776	4,629.00	599.89	86.73	686.62
November 16.....	50,910	321.00	42.41	6.37	48.78
	63,541	398.00	52.96	7.94	60.89
	119,320	767.00	96.42	14.92	111.34
November 21.....	128,020	842.00	106.68	16.00	122.68
November 22.....	25,788	309.00	21.49	.....	21.49
November 27.....	61,400	392.00	51.19	7.68	58.87
	63,450	421.00	52.88	7.93	60.81
	80,757	194.00	26.68	3.84	29.47
	30,320	191.00	25.26	3.79	29.05
November 29.....	30,318	171.00	25.26	3.79	29.05
	121,625	766.00	101.35	15.30	116.65
November 30.....	30,610	193.00	25.51	3.83	29.34
	756,038	4,965.00	630.08	91.29	721.32

PORT OF PORT HURON, MICH.—Continued.

Record of mechanically ground wood pulp imported from Canada from January 1, 1907,
to June 1, 1908—Continued.

Date.	Quantity.	Value.	Duty.	Counter- vailing duty.	Total duty.
1907.					
	<i>Pounds.</i>				
December 2.....	81,000	\$195.00	\$28.82	\$8.88	\$39.70
December 11.....	63,030	397.00	62.53	7.88	60.41
	31,543	199.00	26.28	3.94	30.22
	62,220	262.00	51.85	7.78	59.63
December 18.....	62,680	584.00	77.23	11.58	88.81
December 20.....	124,683	506.00	112.24	.....	112.24
December 24.....	30,000	136.00	25.00	.....	25.00
December 26.....	55,170	354.00	46.81	7.02	53.83
	61,603	388.00	51.34	7.70	59.04
December 27.....	25,000	113.00	20.83	.....	20.83
December 28.....	62,100	391.00	51.75	7.76	59.51
December 30.....	70,000	315.00	58.33	.....	58.33
	30,600	193.00	26.50	8.82	29.32
	750,629	4,163.00	625.57	61.36	686.97
1908.					
January 3.....	27,800	124.00	22.92	.....	22.92
	51,682	326.00	43.07	6.46	49.53
January 4.....	61,260	386.00	51.07	7.66	58.73
	50,760	458.00	42.30	6.35	48.65
January 6.....	71,078	449.00	56.23	8.88	65.11
	61,160	550.00	80.96	7.65	88.61
	70,740	555.00	88.96	8.83	97.79
	20,250	128.00	16.96	2.63	19.40
January 8.....	61,520	554.00	51.27	7.69	58.96
	30,900	278.00	28.76	3.86	29.61
	117,609	1,068.00	98.01	.....	98.01
	30,460	274.00	28.88	3.81	29.19
January 13.....	41,070	370.00	54.22	5.13	59.35
January 14.....	20,820	187.00	17.35	2.60	19.96
January 17.....	61,306	386.00	51.09	7.66	58.75
January 20.....	60,860	383.00	50.72	7.61	58.33
	25,370	228.00	21.14	3.17	24.31
	26,615	161.00	22.18	3.33	25.51
January 23.....	31,070	196.00	25.88	2.84	28.72
	92,495	582.00	77.08	8.78	85.86
January 24.....	56,008	353.00	46.67	7.00	53.67
January 25.....	65,920	415.00	54.93	6.01	60.94
January 27.....	59,822	378.00	49.86	7.48	57.33
	78,690	466.00	65.57	9.84	75.41
	30,400	196.00	25.33	3.80	29.13
	80,000	225.00	41.67	.....	41.67
January 28.....	42,531	1,063.00	35.44	.....	35.44
	20,917	132.00	17.43	2.61	20.04
January 29.....	77,500	349.00	64.58	.....	64.58
	20,502	129.00	17.08	2.56	19.64
	101,970	643.00	84.96	12.76	97.71
January 30.....	20,350	128.00	16.96	1.64	18.60
	1,639,134	12,670.00	1,366.01	155.43	1,521.44
February 4.....	28,840	245.00	32.36	4.86	37.22
February 5.....	30,000	135.00	25.00	.....	25.00
February 10.....	76,769	270.00	63.96	.....	63.96
	20,710	135.00	17.26	2.59	19.85
	30,270	191.00	25.23	3.77	29.00
	76,100	479.00	63.42	2.59	66.01
February 13.....	74,222	289.00	61.85	.....	61.85
	20,000	90.00	16.67	.....	16.67
February 14.....	75,366	270.00	62.78	.....	62.78
February 15.....	30,790	194.00	25.66	2.80	28.46
February 17.....	30,131	180.00	41.78	.....	41.78
	30,340	191.00	25.28	3.79	29.07
February 18.....	22,680	151.00	18.90	2.83	21.73
February 21.....	146,701	465.00	122.25	.....	122.25
	140,459	494.00	117.05	.....	117.05
	50,000	225.00	41.67	.....	41.67
	50,000	225.00	41.67	.....	41.67
	963,338	4,219.00	502.79	23.23	526.02

PORT OF PORT HURON, MICH.—Continued.

Record of mechanically ground wood pulp imported from Canada from January 1, 1907,
to June 1, 1908—Continued.

Date.	Quantity.	Value.	Duty.	Counter- vailing duty.	Total duty.
1908.					
	<i>Pounds.</i>				
March 4.....	112,346	\$394.00	\$93.62	.....	\$93.62
	104,704	860.00	87.25	.....	87.25
March 5.....	40,270	135.00	33.56	.....	33.56
March 7.....	30,000	135.00	25.00	.....	25.00
March 9.....	20,280	154.00	16.90	.....	16.90
March 10.....	57,500	259.00	47.92	.....	47.92
	60,000	270.00	50.00	.....	50.00
March 11.....	30,000	135.00	25.00	.....	25.00
March 12.....	32,250	427.00	26.88	.....	26.88
	57,500	259.00	47.92	.....	47.92
March 13.....	30,260	197.00	25.22	.....	25.22
	30,000	135.00	25.00	.....	25.00
March 16.....	70,000	\$15.00	58.33	.....	58.33
Do.....	30,000	135.00	25.00	.....	25.00
March 21.....	24,088	\$10.00	20.07	.....	20.07
March 23.....	30,940	201.00	25.78	.....	25.78
March 24.....	60,000	270.00	50.00	.....	50.00
March 27.....	30,156	2,004.00	66.80	.....	66.80
	55,000	248.00	45.83	.....	45.83
	60,758	395.00	50.63	.....	50.63
March 28.....	68,770	270.00	57.31	.....	57.31
	1,084,822	7,008.00	904.02	.....	904.02
April 16.....	60,000	270.00	50.00	.....	50.00
	77,599	270.00	64.67	.....	64.67
April 22.....	30,253	191.00	25.21	.....	25.21
April 23.....	60,000	270.00	50.00	.....	50.00
April 27.....	25,740	162.00	21.45	.....	21.45
April 29.....	40,600	256.00	33.53	.....	33.53
	294,192	1,419.00	245.16	.....	245.16
May 6.....	37,800	238.00	31.50	.....	31.50
May 14.....	98,280	590.00	81.90	\$12.28	94.18
May 25.....	60,610	388.00	50.51	.....	50.51
May 26.....	121,450	765.00	101.21	.....	101.21
	318,140	1,981.00	265.12	12.28	277.40

SUMMARY.

1907.					
January.....	75,380	\$419.00	\$92.51	99.43	\$72.24
February.....	142,822	821.00	119.03	12.90	181.98
March.....	942,029	1,826.00	285.04	22.91	307.95
April.....	1,411,963	8,952.00	1,176.67	119.92	1,296.59
May.....	1,637,527	10,250.00	1,364.62	52.19	1,416.81
June.....	2,564,978	19,085.00	2,137.45	67.91	2,205.36
July.....	1,617,622	10,042.00	1,348.08	76.74	1,424.82
August.....	1,144,220	7,188.00	953.53	148.04	1,095.57
September.....	2,220,656	24,058.00	1,850.55	270.63	2,121.18
October.....	719,778	4,629.00	569.99	86.73	656.72
November.....	756,036	4,965.00	630.03	81.29	711.32
December.....	760,629	4,163.00	625.51	61.36	686.87
1908.					
January.....	1,639,134	12,670.00	1,366.01	155.43	1,521.44
February.....	963,338	4,219.00	972.79	23.23	996.02
March.....	1,084,822	7,008.00	904.02	.....	904.02
April.....	294,192	1,419.00	245.16	.....	245.16
May.....	318,140	1,981.00	265.12	12.28	277.40
	17,683,254	123,995.00	14,736.31	1,235.99	15,972.30

PORT OF PORT HURON, MICH.—Continued.

Record of chemical unbleached wood pulp imported from Canada January 1, 1907, to June 1, 1908.

Data.	Quantity.	Value.	Duty.	Counter-vailing duty.	Total duty.
1907.	<i>Pounds.</i>				
January 2.....	83,492	\$1,632.00	\$139.16	\$10.29	\$149.45
Do.....	37,965	723.00	63.27	4.68	67.95
Do.....	39,500	757.00	65.94	4.87	70.81
January 4.....	31,955	639.00	53.26	3.94	57.20
January 7.....	82,150	1,322.00	136.92	10.12	147.04
Do.....	66,952	1,229.00	111.59	8.27	119.86
January 8.....	38,176	706.00	63.63	4.72	68.35
January 9.....	38,513	661.00	64.19	4.75	68.94
Do.....	36,037	674.00	60.06	4.45	64.51
January 12.....	40,304	622.00	67.18	4.97	72.15
January 14.....	43,188	801.00	71.98	5.32	77.30
Do.....	41,465	803.00	69.12	5.11	74.23
Do.....	82,302	1,514.00	137.18	10.14	147.32
Do.....	40,966	764.00	68.28	5.07	73.35
Do.....	42,462	817.00	70.77	5.23	76.00
January 18.....	41,340	683.00	68.90	5.09	73.99
January 21.....	41,187	759.00	68.64	5.09	73.73
Do.....	36,298	565.00	60.49	4.48	64.97
January 24.....	39,704	764.00	66.17	4.80	71.06
January 26.....	34,639	551.00	57.74	4.27	62.01
January 28.....	37,410	722.00	62.35	4.61	66.96
Do.....	41,475	646.00	67.45	5.00	72.45
Do.....	39,044	716.00	65.09	4.81	69.90
Do.....	36,195	555.00	60.33	4.46	64.79
Do.....	42,787	807.00	71.32	5.27	76.59
Do.....	42,141	796.00	70.23	5.19	75.42
Do.....	41,833	651.00	69.72	5.15	74.87
	1,218,540	21,855.00	2,030.96	150.24	2,181.20
February 5.....	40,570	633.00	67.61	5.00	72.61
Do.....	41,932	793.00	69.89	5.17	75.06
Do.....	41,851	791.00	69.76	5.16	74.92
February 12.....	42,108	814.00	70.18	5.19	75.37
February 13.....	43,279	662.00	72.13	5.33	77.46
February 15.....	32,325	497.00	53.87	3.98	57.85
Do.....	39,391	719.00	65.65	4.85	70.50
February 20.....	43,719	828.00	72.84	5.39	78.23
Do.....	41,096	639.00	68.49	5.06	73.55
Do.....	42,026	674.00	70.05	5.18	75.23
Do.....	41,658	765.00	69.44	5.13	74.57
Do.....	40,375	774.00	67.29	4.97	72.26
February 23.....	41,724	787.00	69.54	5.14	74.68
Do.....	39,002	738.00	65.00	4.81	69.81
Do.....	34,982	542.00	58.31	4.31	62.62
Do.....	40,154	755.00	66.98	4.98	71.96
February 25.....	36,341	558.00	60.57	4.48	65.05
Do.....	41,762	739.00	69.60	5.16	74.76
Do.....	39,440	616.00	65.74	4.86	70.60
Do.....	40,292	769.00	67.16	4.96	72.12
Do.....	40,328	774.00	67.21	4.98	72.19
February 26.....	37,969	720.00	63.29	4.68	67.97
Do.....	33,079	572.00	55.13	4.08	59.21
Do.....	38,940	754.00	64.90	4.80	69.70
Do.....	41,107	774.00	68.51	5.07	73.58
Do.....	40,197	736.00	66.99	4.96	71.95
Do.....	40,387	775.00	67.31	4.99	72.30
Do.....	37,203	693.00	62.00	4.61	66.61
	1,113,232	19,891.00	1,856.39	137.25	1,993.64
March 4.....	79,299	1,535.00	132.16	9.78	141.94
March 5.....	36,692	654.00	61.15	5.06	66.21
Do.....	38,026	722.00	63.38	4.69	68.07
March 7.....	35,882	645.00	59.80	4.43	64.23
March 11.....	42,786	813.00	71.31	5.27	76.58
March 12.....	37,659	722.00	62.71	4.64	67.35
Do.....	42,074	813.00	70.13	5.18	75.31
Do.....	38,679	709.00	64.46	4.77	69.23
Do.....	39,953	733.00	66.59	4.92	71.51
Do.....	39,426	735.00	65.71	4.86	70.57
March 13.....	45,949	823.00	76.58	5.66	82.24
Do.....	43,878	790.00	73.12	5.41	78.54
March 14.....	34,438	574.00	57.39	4.26	61.65
Do.....	46,509	781.00	75.85	5.61	81.46

PORT OF PORT HURON, MICH.—Continued.

Record of chemical unbleached wood pulp imported from Canada January 1, 1907, to June 1, 1908.—Continued.

Data.	Quantity.	Value.	Duty.	Counter- vailing duty.	Total duty.
1907.	<i>Pounds.</i>				
March 15.....	43,072	\$787.00	\$71.08	\$5.22	\$77.32
Do.....	42,468	775.00	70.78	5.22	76.01
Do.....	34,050	612.00	56.75	4.20	60.95
March 18.....	32,158	536.00	53.64	2.97	57.61
Do.....	44,368	861.00	73.64	5.47	79.41
March 20.....	81,190	1,291.00	136.65	10.10	146.75
Do.....	45,723	872.00	81.22	6.00	87.22
Do.....	47,278	919.00	78.80	5.96	84.66
March 21.....	47,050	749.00	70.10	5.18	75.23
Do.....	87,818	1,607.00	146.36	10.82	157.18
March 22.....	47,075	918.00	78.46	5.80	84.26
Do.....	78,651	1,271.00	131.09	9.69	140.78
March 23.....	41,817	807.00	69.70	5.15	74.85
March 25.....	46,099	722.00	76.83	5.68	82.51
March 28.....	90,844	1,475.00	151.41	11.19	162.60
	1,408,846	26,232.00	2,348.10	174.20	2,522.30
April 5.....	43,960	801.00	73.27	5.42	78.69
Do.....	36,120	561.00	60.20	4.45	64.65
April 8.....	45,873	891.00	76.45	5.65	82.10
April 11.....	44,931	848.00	73.22	5.41	78.63
Do.....	44,292	949.00	78.53	5.45	79.28
Do.....	41,655	891.00	80.43	5.13	74.56
April 15.....	85,375	1,340.00	142.29	10.52	152.81
Do.....	45,931	843.00	76.55	5.66	82.21
Do.....	50,843	1,087.00	84.74	6.26	91.00
Do.....	45,193	835.00	75.32	5.57	80.89
Do.....	91,478	1,647.00	152.46	11.27	163.73
April 16.....	45,410	735.00	75.68	5.60	81.28
April 16.....	50,154	1,097.00	83.59	6.18	89.77
April 25.....	45,591	741.00	75.98	5.68	81.61
Do.....	44,595	890.00	74.34	5.48	79.82
April 27.....	44,232	794.00	73.72	5.45	79.17
Do.....	88,354	1,789.00	147.26	10.89	158.15
April 29.....	45,589	829.00	75.98	5.63	81.61
Do.....	43,207	797.00	72.01	5.32	77.33
	981,785	18,345.00	1,636.32	120.97	1,757.29
May 1.....	48,360	831.00	80.60	.....	80.60
May 2.....	39,100	693.00	65.16	4.83	69.99
May 4.....	40,796	722.00	68.00	5.02	73.02
Do.....	40,562	633.00	67.61	5.00	72.61
May 6.....	40,366	802.00	67.28	4.97	72.25
Do.....	39,996	647.00	66.57	4.93	71.60
Do.....	42,635	852.00	71.06	5.25	76.31
Do.....	39,665	648.00	66.10	4.90	71.00
May 9.....	36,723	572.00	61.20	4.52	65.72
Do.....	40,313	800.00	67.19	4.97	72.16
May 10.....	42,531	852.00	71.39	5.28	76.67
May 12.....	42,317	661.00	70.52	5.23	75.74
May 15.....	41,029	638.00	68.38	5.06	73.45
Do.....	78,910	1,435.00	131.51	9.73	141.24
May 16.....	48,438	833.00	80.73	.....	80.73
May.....	39,852	703.00	66.42	4.91	71.33
May 20.....	41,930	658.00	69.88	5.17	75.05
Do.....	40,272	791.00	67.12	4.96	72.08
Do.....	37,242	725.00	62.07	4.59	66.66
May 23.....	38,423	769.00	64.04	4.73	68.77
Do.....	43,578	898.00	72.64	5.37	78.01
Do.....	36,735	668.00	61.22	4.64	65.76
May 24.....	85,046	1,680.00	141.74	10.48	152.22
Do.....	43,918	801.00	73.20	5.41	78.61
Do.....	42,253	841.00	70.48	5.21	75.69
May 25.....	69,406	1,263.00	116.68	8.55	124.23
May 31.....	40,761	810.00	67.93	5.08	72.96
Do.....	32,166	1,320.00	138.94	10.12	147.06
Do.....	46,287	928.00	77.15	5.70	82.85
Do.....	77,839	1,571.00	129.60	9.60	139.50
Do.....	46,479	913.00	75.80	5.60	81.40
	1,473,359	26,937.00	2,455.61	169.65	2,625.26
June 3.....	38,337	770.00	63.90	4.72	68.62
Do.....	48,269	967.00	80.43	5.95	86.38
Do.....	46,748	916.00	76.26	5.64	81.89

PORT OF PORT HURON, MICH.—Continued.

Record of chemical unbleached wood pulp imported from Canada January 1, 1907, to June 1, 1908—Continued.

Data.	Quantity.	Value.	Duty.	Counter-vailing duty.	Total duty.
1907.	<i>Pounds.</i>				
June 6.....	79,684	\$1,610.00	\$122.81	39.82	\$142.63
June 10.....	35,243	582.00	58.74	4.24	63.08
June 11.....	37,662	746.00	62.77	4.64	67.41
June 13.....	48,594	836.00	80.99	.....	80.99
June 14.....	36,792	781.00	61.32	4.53	65.85
Do.....	38,517	767.00	64.19	4.75	68.94
June 19.....	40,266	809.00	67.11	4.96	72.07
June 20.....	36,287	702.00	60.48	4.47	64.95
Do.....	84,984	1,719.00	141.64	10.47	152.11
June 22.....	38,082	758.00	63.47	4.70	68.17
	608,455	11,913.00	1,014.10	68.99	1,083.09
July 3.....	53,183	920.00	88.64	.....	88.64
July 6.....	55,635	1,001.00	92.73	6.86	99.59
Do.....	88,022	1,615.00	146.54	11.02	157.56
July 11.....	46,977	943.00	78.39	5.80	84.06
Do.....	47,558	948.00	79.26	5.86	85.12
Do.....	43,940	811.00	73.26	5.42	78.68
July 12.....	45,990	919.00	76.65	5.67	82.32
July 13.....	43,754	872.00	72.93	5.39	78.32
Do.....	46,091	828.00	75.16	5.56	80.72
July 15.....	48,672	888.00	81.12	6.00	87.12
July 19.....	43,778	780.00	72.96	5.40	78.36
Do.....	39,720	789.00	66.20	4.89	71.09
July 23.....	43,197	868.00	71.99	5.33	77.32
Do.....	47,612	852.00	79.35	5.87	85.22
July 24.....	38,382	704.00	63.97	4.73	68.70
Do.....	47,974	953.00	79.96	5.91	85.87
July 25.....	43,868	804.00	73.12	5.41	78.53
July 26.....	91,705	1,645.00	152.84	11.29	164.13
Do.....	46,617	830.00	76.03	5.62	81.65
Do.....	38,738	774.00	64.56	4.77	69.33
July 29.....	82,238	1,516.00	137.06	10.13	147.19
July 31.....	44,861	822.00	74.77	5.53	80.30
	1,126,532	21,082.00	1,877.39	132.46	2,009.85
August 1.....	44,889	898.00	74.81	5.53	80.34
August 3.....	99,681	1,796.00	149.47	11.05	160.52
August 5.....	92,037	1,832.00	153.39	11.34	164.73
August 12.....	46,330	851.00	77.22	5.71	82.93
August 13.....	40,888	723.00	68.15	5.04	73.19
Do.....	45,036	913.00	76.06	5.62	81.68
August 14.....	38,389	675.00	63.99	4.73	68.72
Do.....	42,159	768.00	70.26	5.19	75.45
August 21.....	43,452	796.00	72.42	5.85	77.77
Do.....	27,599	475.00	46.00	.....	46.00
August 22.....	78,966	1,419.00	131.61	9.73	141.34
August 26.....	33,433	654.00	55.74	4.12	59.86
	623,469	11,800.00	1,039.12	73.41	1,112.53
September 30.....	29,322	575.00	48.87	5.24	54.11
September 5.....	43,360	864.00	72.26	5.34	77.60
Do.....	70,737	1,339.00	117.90	8.72	126.62
September 9.....	36,957	673.00	61.56	4.56	66.15
September 11.....	42,187	797.00	70.32	5.20	75.52
Do.....	43,189	849.00	71.99	5.32	77.31
September 12.....	98,275	1,867.00	163.80	12.11	175.91
September 13.....	29,322	575.00	48.87	5.24	54.11
September 15.....	90,594	1,828.00	150.99	11.16	162.15
September 19.....	44,408	785.00	74.01	5.47	79.48
September 23.....	40,003	700.00	66.67	4.93	71.60
September 30.....	84,313	1,501.00	140.52	10.39	150.91
	623,345	11,778.00	1,038.92	78.44	1,117.36
October 10.....	41,368	757.00	68.94	5.10	74.04
October 18.....	115,680	2,097.00	192.80	14.25	207.05
October 28.....	42,235	839.00	70.39	5.20	75.59
Do.....	44,250	807.00	73.75	5.45	79.20
Do.....	43,849	772.00	73.08	5.40	78.48
	287,382	5,272.00	478.96	35.40	514.36
November 1.....	43,066	862.00	71.78	5.31	77.09
November 5.....	81,231	1,442.00	135.58	10.00	145.58
Do.....	87,177	1,853.00	145.29	10.74	156.03

PORT OF PORT HURON, MICH.—Continued.

Record of chemical unbleached wood pulp imported from Canada January 1, 1907, to June 1, 1908—Continued.

Date.	Quantity.	Value.	Duty.	Counter-vailing duty.	Total duty.
1907.					
	<i>Pounds.</i>				
November 5.....	37,010	\$732.00	\$61.68	\$4.56	\$66.24
November 7.....	84,645	1,700.00	141.07	10.41	151.48
November 8.....	26,578	147.00	42.64	3.15	45.79
Do.....	76,413	1,387.00	127.35	9.43	136.78
November 11.....	42,658	763.00	71.10	5.26	76.36
November 12.....	43,547	868.00	72.58	5.36	77.94
Do.....	80,977	1,503.00	134.96	9.98	144.94
November 15.....	64,935	1,286.00	108.22	8.01	116.23
Do.....	37,264	739.00	62.10	4.59	66.69
Do.....	35,968	702.00	59.94	4.43	64.37
Do.....	40,899	742.00	68.11	5.05	73.16
November 21.....	42,296	771.00	70.49	5.21	75.70
Do.....	69,806	1,379.00	116.33	8.61	124.94
Do.....	42,691	851.00	71.16	5.25	76.41
November 23.....	42,746	782.00	71.24	5.27	76.51
November 27.....	78,658	1,627.00	131.10	9.59	140.79
Do.....	75,606	1,339.00	126.01	9.32	135.33
Do.....	79,912	1,596.00	133.18	9.86	143.04
	1,213,053	22,671.00	2,021.71	149.49	2,171.20
December 11.....	19,467	152.00	32.45	2.36	34.84
December 12.....	17,970	141.00	29.95	2.20	32.15
Do.....	44,202	873.00	73.67	5.45	79.12
Do.....	83,429	1,994.00	139.04	10.28	149.32
Do.....	38,576	704.00	64.29	4.75	69.04
Do.....	110,069	2,196.00	183.45	13.56	197.01
December 14.....	38,217	757.00	63.69	4.71	68.40
December 16.....	41,875	824.00	69.80	5.16	74.96
Do.....	14,145	111.00	23.58	1.74	25.32
Do.....	78,693	1,422.00	131.16	9.70	140.86
Do.....	34,368	625.00	57.28	4.26	61.52
December 18.....	13,365	106.00	22.27	1.65	23.92
December 19.....	17,918	141.00	29.87	2.20	32.07
Do.....	39,058	792.00	65.10	4.81	69.91
December 23.....	40,567	714.00	67.61	5.00	72.61
December 24.....	33,890	847.00	56.48	.....	56.48
Do.....	15,704	126.00	25.17	1.94	28.11
December 26.....	12,936	102.00	21.56	1.59	23.15
Do.....	31,194	245.00	51.99	3.84	55.83
December 28.....	24,844	195.00	41.41	3.06	44.47
	750,487.00	12,537	1,250.82	88.27	1,339.09
1908.					
January 2.....	121,803	2,313.00	208.00	15.01	213.01
Do.....	43,425	789.00	72.38	5.35	77.71
January 3.....	41,915	1,048.00	99.86	.....	99.86
Do.....	71,058	1,413.00	118.43	8.76	127.19
January 6.....	37,551	741.00	62.58	4.62	67.20
Do.....	40,890	746.00	68.15	5.04	73.19
Do.....	37,489	720.00	62.48	4.62	67.10
January 14.....	40,811	743.00	68.01	5.03	73.04
January 17.....	40,875	787.00	68.13	5.03	73.16
January 20.....	40,728	756.00	67.88	5.02	72.90
January 22.....	41,678	832.00	69.46	5.14	74.60
January 24.....	9,490	237.00	15.81	.....	15.81
January 25.....	37,183	671.00	61.97	4.58	66.55
January 31.....	36,265	804.00	60.44	.....	60.44
	641,164	12,603.00	1,068.58	68.20	1,136.78
February 20.....	37,477	699.00	62.45	4.63	67.08
February 21.....	38,187	714.00	63.65	4.70	68.35
February 25.....	38,372	713.00	63.95	4.73	68.68
February 28.....	119,858	2,156.00	199.77	14.76	214.53
	233,894	4,282.00	389.82	28.82	418.64
March 4.....	34,232	726.00	57.06	4.22	61.28
March 9.....	39,920	726.00	66.54	4.91	71.45
Do.....	71,543	1,386.00	119.23	8.82	128.05
March 10.....	30,764	578.00	51.27	3.79	55.06
Do.....	38,842	715.00	64.74	4.79	69.53
March 16.....	35,990	700.00	59.98	4.48	64.41
March 18.....	36,989	671.00	61.70	4.51	66.21
Do.....	70,295	1,346.00	117.16	8.68	125.83
March 19.....	37,635	730.00	62.72	4.64	67.36
Do.....	40,024	771.00	66.71	4.98	71.69

PORT OF PORT HURON, MICH.—Continued.

Record of chemical unbleached wood pulp imported from Canada January 1, 1907, to June 1, 1908—Continued.

Data.	Quantity.	Value.	Duty.	Counter-vailing duty.	Total duty.
1908.	<i>Pounds.</i>				
March 19.....	40,832	\$783.00	\$98.06	\$5.03	\$73.09
Do.....	36,911	738.00	61.82	4.55	66.07
Do.....	88,473	735.00	64.12	4.74	68.86
Do.....	41,491	804.00	69.15	5.11	74.26
March 20.....	42,145	812.00	70.24	5.19	75.43
Do.....	38,167	735.00	63.61	4.70	68.31
Do.....	81,473	1,467.00	135.78	10.04	145.82
March 23.....	35,226	667.00	58.71	4.34	63.05
March 24.....	113,671	2,064.00	189.45	14.01	203.46
March 25.....	37,600	706.00	62.68	4.63	67.31
Do.....	83,771	1,598.00	139.62	10.32	149.94
Do.....	78,305	1,471.00	130.51	9.65	140.16
Do.....	40,836	775.00	68.06	5.03	73.09
March 26.....	40,096	744.00	66.83	4.94	71.77
	1,185,231	22,448.00	1,975.44	146.00	2,121.44
April 9.....	41,866	774.00	69.78	5.16	74.94
Do.....	40,338	738.00	67.23	4.97	72.20
Do.....	77,277	1,438.00	128.80	9.52	138.32
April 10.....	42,138	794.00	70.23	5.19	75.42
Do.....	77,632	1,002.00	129.39	9.57	138.96
Do.....	38,587	735.00	64.31	4.75	69.06
April 11.....	40,893	770.00	68.16	5.04	73.20
April 20.....	33,584	840.00	55.97	.....	55.97
April 21.....	36,195	870.00	60.33	.....	60.33
April 23.....	36,982	654.00	61.63	4.56	66.19
April 24.....	39,351	974.00	65.59	.....	65.59
April 25.....	39,882	768.00	66.47	4.92	71.39
April 27.....	39,496	724.00	65.83	4.87	70.70
Do.....	35,789	662.00	59.65	4.41	64.06
April 28.....	37,632	693.00	62.72	4.64	67.36
	657,642	12,936.00	1,096.09	67.60	1,163.69
May 1.....	42,570	747.00	70.95	5.24	76.19
May 6.....	37,740	694.00	62.90	4.65	67.55
May 16.....	42,596	784.00	70.99	5.26	76.24
May 19.....	34,360	859.00	67.27	.....	67.27
Do.....	37,446	936.00	62.41	.....	62.41
Do.....	19,575	350.00	32.63	3.50	36.13
May 20.....	44,355	819.00	73.93	5.47	79.40
May 28.....	37,227	677.00	62.04	4.59	66.63
	295,869	5,866.00	493.12	28.70	521.82

SUMMARY.

1907.					
January.....	1,218,540	\$21,885.00	\$2,030.96	\$150.24	\$2,181.20
February.....	1,113,232	19,891.00	1,855.39	137.25	1,992.64
March.....	1,408,846	25,332.00	2,348.10	174.20	2,522.30
April.....	981,785	18,945.00	1,636.32	120.97	1,757.29
May.....	1,473,359	26,337.00	2,455.61	189.65	2,645.26
June.....	608,455	11,913.00	1,014.10	68.99	1,083.09
July.....	1,126,532	21,482.00	1,877.39	132.46	2,009.85
August.....	623,469	11,800.00	1,039.12	73.41	1,012.53
September.....	623,345	11,778.00	1,038.92	78.44	1,117.36
October.....	287,382	5,772.00	478.96	35.40	514.36
November.....	1,213,053	22,671.00	2,021.71	149.49	2,171.20
December.....	750,487	12,337.00	1,250.82	88.27	1,339.09
1908.					
January.....	641,164	12,603.00	1,068.58	66.20	1,136.78
February.....	233,894	4,262.00	389.82	28.82	418.64
March.....	1,185,231	21,722.00	1,975.44	146.00	2,121.44
April.....	657,642	12,936.00	1,096.09	67.60	1,163.69
May.....	295,869	5,866.00	493.12	28.70	521.82
	14,442,285	266,752.00	24,070.45	1,718.09	25,788.54

No importations of filter mass, or filter stock under paragraph 395, during the period from January 1, 1907, to June 1, 1908.

PORT OF PORT HURON, MICH.—Continued.

Record of printing paper imported from Canada from January 1, 1907, to June 1, 1908.

Date.	Quantity.	Value.	Duty.	Counter- vailing duty.	Total duty.
1907.	<i>Pounds.</i>				
March 13.....	40,761	\$674.00	\$122.28		
March 27.....	28,930	644.00	116.79		
March 28.....	37,960	689.00	113.97		
March 30.....	37,473	680.00	112.42		
	155,154	2,687.00	465.46		\$465.46
April 2.....	79,127	1,438.00	237.39		
April 4.....	53,603	887.00	160.81		
April 8.....	48,350	878.00	145.05		
Do.....	28,544	472.00	85.63		
Do.....	48,797	807.00	146.30		
April 13.....	50,180	938.00	150.54		
April 20.....	41,912	813.00	125.74		
Do.....	37,151	613.00	111.45		
April 25.....	36,759	713.00	110.28		
April 27.....	34,532	632.00	103.60		
	458,965	8,291.00	1,376.87		1,376.87
May 1.....	29,837	745.00	119.51		
May 3.....	50,475	944.00	151.43		
May 6.....	34,406	837.00	103.22		
Do.....	41,337	765.00	124.01		
May 7.....	34,979	617.00	104.94		
Do.....	20,232	379.00	60.70		
Do.....	78,826	1,459.00	236.48		
May 9.....	128,290	2,386.00	394.78		
May 14.....	28,520	471.00	85.56		
May 16.....	38,268	708.00	114.80		
Do.....	51,178	980.00	153.53		
May 21.....	32,030	570.00	96.09		
May 24.....	48,568	899.00	145.70		
May 28.....	33,531	620.00	100.50		
May 29.....	29,838	552.00	89.51		
	600,285	12,712.00	2,070.85		2,070.85
June 3.....	100,961	3,719.00	302.88		
June 10.....	30,176	558.00	90.53		
June 13.....	23,927	628.00	101.78		
June 17.....	41,218	763.00	123.65		
June 18.....	40,666	752.00	122.00		
June 24.....	41,873	775.00	125.62		
June 25.....	35,863	663.00	107.59		
June 29.....	44,573	825.00	133.72		
	369,257	8,683.00	1,107.77		1,107.77
July 5.....	45,200	836.00	135.60		
Do.....	49,595	918.00	148.79		
July 8.....	48,452	896.00	145.36		
July 15.....	37,006	685.00	111.02		
July 17.....	37,548	697.00	112.64		
July 19.....	45,109	835.00	135.33		
July 25.....	81,846	1,556.00	245.54		
July 29.....	40,194	744.00	120.66		
	384,950	7,167.00	1,154.86		1,154.86
August 3.....	44,794	829.00	134.38		
August 9.....	35,947	665.00	107.84		
August 10.....	44,785	644.00	134.36		
Do.....	39,772	736.00	119.82		
August 26.....	45,344	839.00	136.03		
	210,642	3,713.00	631.93		631.93
September 3.....	72,014	1,332.00	216.05		
Do.....	43,610	907.00	130.83		
September 4.....	39,844	737.00	119.63		
September 6.....	38,640	705.00	115.96		
September 7.....	40,653	782.00	121.96		
Do.....	26,036	482.00	78.11		
September 23.....	45,384	839.00	136.15		
Do.....	2,063	38.00	6.19		
	308,253	5,692.00	924.78		924.78

PORT OF PORT HURON, MICH.—Continued.

Record of printing paper imported from Canada from January 1, 1907, to June 1, 1908—Continued.

Data.	Quantity.	Value.	Duty.	Counter- vailing duty.	Total duty.
1907.					
October 7.....	<i>Pounds.</i> 39,876	\$738.00	\$119.63	-----	-----
October 24.....	44,842	930.00	134.63	-----	-----
	84,718	1,668.00	254.16	-----	-----
November 7.....	38,483	675.00	109.45	-----	-----
December 14.....	74,000	1,406.00	222.00	\$15.76	\$237.76
December 17.....	36,000	684.00	108.00	7.67	115.67
December 20.....	36,500	699.00	109.50	7.77	117.27
December 24.....	43,200	781.00	129.60	9.20	138.80
December 27.....	42,300	809.00	126.90	9.01	135.91
Do.....	41,700	792.00	125.10	8.88	133.98
Do.....	36,200	688.00	108.60	7.71	116.31
Do.....	76,500	1,465.00	229.50	16.20	245.70
Do.....	116,400	2,229.00	349.20	24.79	373.99
Do.....	42,700	811.00	128.10	9.09	137.19
Do.....	84,700	1,609.00	254.09	18.04	272.13
	630,200	11,977.00	1,890.59	134.21	2,024.80
1908.					
January 2.....	37,400	710.00	112.21	7.96	120.17
February 12.....	40,395	768.00	121.19	-----	121.19
February 24.....	35,927	683.00	107.78	-----	107.78
	76,322	1,451.00	228.97	-----	228.97

SUMMARY.

1907.					
March.....	155,154	\$2,687.00	\$465.46	-----	\$465.46
April.....	458,955	8,291.00	1,376.87	-----	1,376.87
May.....	690,286	12,012.00	2,070.85	-----	2,070.85
June.....	369,257	8,683.00	1,107.77	-----	1,107.77
July.....	384,950	7,167.00	1,154.86	-----	1,154.86
August.....	210,642	3,713.00	631.93	-----	631.93
September.....	308,253	5,692.00	924.78	-----	924.78
October.....	84,718	1,668.00	254.16	-----	254.16
November.....	86,483	675.00	109.45	-----	109.45
December.....	630,200	11,977.00	1,890.59	\$134.21	2,024.80
1908.					
January.....	37,400	710.00	112.21	7.96	120.17
February.....	76,322	1,451.00	228.97	-----	228.97
	3,442,619	65,426.00	10,327.90	142.17	10,470.07

Record of pulp wood imported at the port of Port Huron, Mich., from Canada, January 1, 1908, to June 1, 1908.

Data.	Cords.	Value.	Duty.
1907.			
April.....	338	\$1,596.00	None.
May.....	932	4,223.00	-----
June.....	1,266	4,090.00	-----
July.....	4,215	15,277.00	-----
August.....	4,211	19,595.00	-----
September.....	6,253	29,012.00	-----
October.....	4,831	23,094.00	-----
November.....	2,289	11,400.00	-----
December.....	134	567.00	-----
1908.			
January.....	11	44.00	-----
February.....	11	44.00	-----
April.....	82	255.00	-----
May.....	31	125.00	-----
	24,573	109,322.00	-----

PORT OF DETROIT, MICH.

Imports received from January 1, 1907, to June 1, 1908.

MECHANICALLY GROUND WOOD PULP.

Whence arrived.	Date of arrival.	Quantity.	Value.	Specific duty.	Counter-vailing duty.
Quebec.....	1907. Jan. 2	Pounds. 34,000	\$226.00	\$30.00	.....
Do.....	Jan. 3	104,442	509.00	57.04	\$13.06
Do.....	Jan. 4	146,535	798.00	123.12	18.31
Do.....	Jan. 5	80,742	440.00	57.29	10.09
Do.....	Jan. 6	30,128	170.00	25.10	3.77
Do.....	Jan. 7	71,160	388.00	59.30	8.90
Do.....	Jan. 9	41,310	225.00	34.43	5.17
Do.....	Jan. 10	90,490	488.00	75.41	.....
Do.....	Jan. 14	118,440	646.00	98.70	14.81
Do.....	Jan. 15	74,883	748.00	62.36	2.81
Do.....	Jan. 16	37,416	365.00	31.18	1.40
Do.....	Jan. 16	149,755	822.00	124.80	18.73
Do.....	Jan. 16	48,746	926.00	40.62	.....
Do.....	Jan. 18	53,902	998.00	44.92	.....
Do.....	Jan. 18	43,553	437.00	26.38	1.64
Do.....	Jan. 22	192,320	1,837.00	161.10	7.25
Do.....	Jan. 23	37,800	496.00	81.50	.....
Do.....	Jan. 23	36,860	479.00	30.72	.....
Do.....	Jan. 26	37,417	374.00	31.18	1.40
Do.....	Jan. 26	30,810	168.00	25.68	3.85
Do.....	Jan. 26	30,810	168.00	25.68	3.85
Do.....	Jan. 30	74,834	748.00	62.36	2.81
Do.....	Feb. 1	53,780	304.00	46.48	6.97
Do.....	Feb. 1	37,397	590.00	31.17	4.61
Do.....	Feb. 1	25,810	468.00	71.60	10.73
Do.....	Feb. 1	24,092	540.00	28.41	4.20
Do.....	Feb. 1	49,680	646.00	41.40	.....
Do.....	Feb. 5	88,808	484.00	74.00	11.06
Do.....	Feb. 7	28,400	304.00	22.00	.....
Do.....	Feb. 8	58,410	322.00	46.18	6.93
Do.....	Feb. 12	137,920	750.00	114.93	3.97
Do.....	Feb. 12	37,800	491.00	31.50	.....
Do.....	Feb. 12	75,221	752.00	62.68	2.82
Do.....	Feb. 12	90,529	496.00	75.77	11.87
Do.....	Feb. 16	30,220	580.00	41.62	.....
Do.....	Feb. 16	25,380	166.00	26.16	3.70
Do.....	Feb. 18	62,362	188.00	21.15	3.17
Do.....	Feb. 18	62,362	624.00	51.97	2.84
Do.....	Feb. 23	31,342	813.00	26.12	1.18
Do.....	Feb. 25	49,100	638.00	52.77	2.88
Do.....	Feb. 25	60,960	638.00	40.92	6.14
Do.....	Feb. 26	56,040	827.00	50.80	7.63
Do.....	Feb. 26	40,520	326.00	46.70	7.01
Do.....	Feb. 27	27,800	166.00	34.08	6.11
Do.....	Feb. 28	51,280	280.00	28.26	3.49
Do.....	Mar. 1	30,700	167.00	42.73	6.41
Do.....	Mar. 1	57,470	302.00	26.58	3.84
Do.....	Mar. 4	30,480	166.00	47.82	6.92
Do.....	Mar. 4	63,438	634.00	26.40	3.81
Do.....	Mar. 4	30,000	164.00	52.86	3.88
Do.....	Mar. 6	30,120	164.00	25.00	3.75
Do.....	Mar. 6	142,100	774.00	26.10	3.77
Do.....	Mar. 6	90,500	1,099.00	118.42	17.76
Do.....	Mar. 11	72,220	444.00	75.42	.....
Do.....	Mar. 11	30,550	167.00	61.62	9.18
Do.....	Mar. 11	20,420	111.00	26.46	3.82
Do.....	Mar. 13	81,650	445.00	17.02	2.65
Do.....	Mar. 13	30,350	165.00	65.94	10.21
Do.....	Mar. 13	28,205	143.00	25.29	3.80
Do.....	Mar. 14	35,858	377.00	21.84	3.28
Do.....	Mar. 14	21,723	391.00	29.88	1.35
Do.....	Mar. 15	51,938	283.00	18.10	.....
Do.....	Mar. 15	35,858	359.00	43.26	6.49
Do.....	Mar. 16	61,610	326.00	29.88	1.35
Do.....	Mar. 16	30,160	164.00	51.33	7.70
Do.....	Mar. 18	50,910	354.00	25.13	3.77
Do.....	Mar. 18	46,700	526.00	42.43	6.39
Do.....	Mar. 18	74,180	839.00	38.92	.....
Do.....	Mar. 20	38,291	363.00	61.82	.....
Do.....	Mar. 20	71,716	717.00	30.24	1.36
Do.....	Mar. 22	37,800	428.00	59.76	2.69
Do.....	Mar. 22	35,850	350.00	81.60	.....
Do.....	Mar. 23	30,430	166.00	29.88	1.35
Do.....	Mar. 24	20,270	132.00	25.36	3.81
Do.....	Mar. 25	22,650	162.00	16.80	2.54
Do.....	Mar. 25	22,650	162.00	27.21	4.08

PORT OF DETROIT, MICH.—Continued.

Imports received from January 1, 1907, to June 1, 1908—Continued.

MECHANICALLY GROUND WOOD PULP—Continued.

Whence arrived.	Date of arrival.	Quantity.	Value.	Specific duty.	Countervailing duty.
	1907.	Pounds.			
Quebec.....	Apr. 8	48,750	\$278.00	\$40.63	.....
Do.....	do.	35,858	359.00	29.88	\$1.35
Do.....	do.	60,730	394.00	50.61	7.59
Do.....	Apr. 9	35,740	404.00	29.78	.....
Do.....	Apr. 17	35,858	350.00	29.88	1.35
Do.....	Apr. 24	17,601	817.00	14.67	.....
Do.....	Apr. 29	179,290	1,703.00	149.41	6.73
Do.....	May 1	35,920	359.00	29.93	1.35
Do.....	May 7	31,181	359.00	25.98	1.17
Do.....	do.	35,981	378.00	29.98	1.35
Do.....	May 8	22,553	173.00	18.80	.....
Do.....	May 9	18,245	139.00	15.20	.....
Do.....	May 10	155,905	1,481.00	129.92	5.85
Do.....	May 16	23,396	269.00	19.49	.68
Do.....	May 20	18,262	139.00	15.22	.....
Do.....	May 22	15,684	180.00	13.07	.....
Do.....	do.	31,181	359.00	25.98	1.17
Do.....	do.	36,229	362.00	30.19	1.36
Do.....	May 27	30,100	211.00	25.09	.....
Ontario.....	May 28	30,100	211.00	25.09	.....
Quebec.....	May 29	49,000	268.00	40.00	.....
Do.....	do.	34,620	450.00	28.85	.....
Do.....	June 1	22,580	294.00	18.82	.....
Ontario.....	June 3	27,950	196.00	23.29	.....
Do.....	June 4	27,950	196.00	23.29	.....
Do.....	June 10	27,950	196.00	23.29	.....
Do.....	June 11	27,000	218.00	22.50	.....
Do.....	June 15	57,700	682.00	48.08	.....
Do.....	June 18	25,800	181.00	21.50	.....
Quebec.....	do.	34,620	409.00	28.85	.....
Do.....	do.	22,680	318.00	18.90	.....
Do.....	do.	34,020	476.00	28.35	.....
Do.....	June 18	34,620	409.00	28.85	.....
Do.....	June 19	45,000	363.00	37.50	.....
Do.....	June 20	34,620	450.00	28.85	.....
Do.....	June 22	35,858	394.00	29.88	1.35
Do.....	do.	36,291	417.00	30.24	1.36
Do.....	June 24	60,610	408.00	50.51	.....
Do.....	do.	46,160	645.00	38.47	.....
Do.....	do.	34,620	359.00	28.85	.....
Do.....	June 25	45,360	536.00	37.80	.....
Do.....	June 26	34,620	409.00	28.85	.....
Do.....	do.	34,620	409.00	28.85	.....
Do.....	July 3	57,600	346.00	48.00	.....
Do.....	do.	36,229	399.00	30.19	1.36
Quebec.....	July 5	65,931	791.00	54.94	2.47
Do.....	do.	59,900	337.00	49.92	.....
New Brunswick.....	July 6	36,756	698.00	30.63	.....
Ontario.....	July 6	34,400	206.00	28.67	.....
Quebec.....	July 10	34,620	409.00	28.85	.....
Do.....	July 11	317,896	3,756.00	264.91	.....
Do.....	do.	29,826	298.00	24.86	1.12
Ontario.....	July 12	30,490	172.00	25.41	.....
Quebec.....	do.	35,858	412.00	29.88	1.09
Do.....	do.	72,086	793.00	60.07	2.70
Do.....	do.	28,720	339.00	23.94	.....
Ontario.....	July 16	53,680	362.00	44.73	.....
Quebec.....	do.	35,220	416.00	29.35	.....
Do.....	do.	71,839	790.00	59.87	2.70
Do.....	do.	31,181	359.00	25.98	1.17
Do.....	do.	34,627	409.00	28.86	.....
Do.....	July 18	34,627	409.00	28.86	.....
Ontario.....	do.	60,200	302.00	50.17	.....
Quebec.....	do.	29,826	343.00	24.86	1.12
Do.....	do.	176,173	2,081.00	146.81	.....
Do.....	do.	23,925	197.00	19.94	1.72
Do.....	July 23	46,170	546.00	38.48	.....
Do.....	do.	38,167	406.00	30.14	1.36
Do.....	do.	50,960	344.00	42.47	.....
Do.....	July 25	62,792	691.00	52.33	2.24
Do.....	do.	23,085	273.00	19.24	.....
Do.....	July 30	75,252	527.00	62.71	.....
Do.....	do.	62,362	686.00	51.97	2.24
Do.....	do.	31,611	364.00	26.34	1.19
Ontario.....	Aug. 7	81,700	572.00	68.06	.....
Do.....	do.	96,535	676.00	80.45	.....

PORT OF DETROIT, MICH.—Continued.

Imports received from January 1, 1907, to June 1, 1908—Continued.

MECHANICALLY GROUND WOOD PULP—Continued.

Whence arrived.	Date of arrival.	Quantity.	Value.	Specific duty.	Counter-vailing duty.
	1907.	Pounds.			
Quebec	Aug. 12	53,222	\$695.00	\$52.69	\$2.37
Do	do	58,350	343.00	43.62	7.30
Do	Aug. 20	63,114	726.00	52.60	2.37
Do	do	80,334	864.00	66.95	3.01
Do	do	28,724	342.00	24.77	1.12
Do	do	51,600	362.00	43.00	.....
Do	Aug. 26	62,694	690.00	52.24	2.35
Do	do	31,570	363.00	26.30	1.18
Do	do	31,131	359.00	25.98	1.17
Do	Aug. 27	35,840	423.00	29.87	.....
Do	Sept. 7	91,983	1,012.00	76.65	3.45
Do	do	97,730	516.00	81.44	.....
Do	Sept. 11	31,181	359.00	25.98	1.17
Do	do	73,590	463.00	61.32	9.20
Ontario	Sept. 13	32,250	223.00	26.88	.....
Quebec	do	35,235	416.00	29.36	.....
Do	Sept. 16	31,181	359.00	25.98	1.17
Do	Sept. 18	133,540	842.00	111.28	16.69
Do	do	68,501	754.00	57.08	2.57
Do	Sept. 19	65,498	720.00	54.57	2.46
Do	do	30,270	191.00	25.23	3.78
Ontario	Sept. 21	62,350	437.00	51.96	.....
Quebec	do	23,065	273.00	19.24	.....
Do	Sept. 25	24,627	409.00	28.86	.....
Do	do	71,716	861.00	59.76	2.69
Do	Sept. 26	64,500	406.00	53.75	8.06
Ontario	Sept. 28	27,900	196.00	23.25	.....
Quebec	Oct. 2	71,716	789.00	59.76	2.69
Do	do	80,750	509.00	67.29	10.10
Do	Oct. 3	31,540	126.00	26.28	.....
Ontario	Oct. 5	166,292	1,040.00	138.56	20.79
Quebec	do	86,000	551.00	71.67	.....
Do	Oct. 7	35,858	412.00	29.88	1.35
Do	do	35,858	412.00	29.88	1.35
Do	do	77,716	789.00	81.76	2.69
Do	Oct. 8	35,858	412.00	29.88	1.35
Do	do	156,467	986.00	130.39	19.56
Do	Oct. 9	111,495	703.00	92.91	13.94
Ontario	Oct. 14	83,850	588.00	69.88	.....
Do	do	79,980	480.00	66.65	.....
Quebec	Oct. 15	134,901	876.00	112.42	16.86
Do	do	177,103	1,179.00	147.59	22.14
Do	do	35,858	412.00	29.88	1.35
Do	Oct. 21	59,244	652.00	49.37	2.22
Do	do	35,858	412.00	29.88	1.35
Do	do	123,220	775.00	102.68	15.40
Do	Oct. 22	59,625	402.00	49.69	7.45
Do	do	185,510	1,046.00	154.59	23.19
Do	do	146,000	920.00	121.67	18.25
Do	do	47,255	543.00	39.38	1.77
Do	Oct. 23	57,600	346.00	48.00	.....
Do	do	28,800	173.00	24.00	.....
Do	do	71,716	789.00	59.76	2.69
Ontario	Oct. 25	30,100	311.00	25.08	.....
Quebec	do	208,497	1,349.00	173.75	26.05
Do	do	20,930	117.00	17.44	2.62
Ontario	Oct. 28	90,300	542.00	75.25	.....
Quebec	Oct. 29	205,460	1,294.00	171.22	25.68
Do	do	37,417	430.00	31.18	1.40
Do	do	37,546	375.00	31.29	1.41
Do	Oct. 30	28,800	173.00	24.00	.....
Do	Nov. 1	29,240	380.00	24.37	.....
Do	do	47,780	565.00	39.82	.....
Do	do	35,240	458.00	29.37	.....
Do	do	251,710	1,586.00	206.76	31.47
Do	Nov. 4	198,528	1,251.00	165.44	24.82
Do	do	62,362	748.00	61.97	2.34
Ontario	Nov. 5	88,150	530.00	73.46	.....
Quebec	do	71,716	789.00	59.76	2.69
Do	do	88,170	215.00	31.81	4.77
Do	do	35,858	412.00	29.88	1.35
Do	do	35,240	458.00	29.37	.....
Ontario	Nov. 8	64,500	462.00	53.75	.....
Quebec	Nov. 9	139,871	887.00	116.66	17.49
Do	Nov. 12	176,455	1,112.00	147.05	22.05
Do	Nov. 13	34,620	409.00	28.85	.....

PORT OF DETROIT, MICH.—Continued.

Imports received from January 1, 1907, to June 1, 1908—Continued.

MECHANICALLY GROUND WOOD PULP—Continued.

Whence arrived.	Date of arrival.	Quantity.	Value.	Specific duty.	Counter-vailing duty.
	1907.	<i>Pounds.</i>			
Quebec	Nov. 14	34,620	\$409.00	\$28.85	
Do	do	145,517	917.00	121.26	\$18.19
Do	Nov. 15	123,993	787.00	103.33	15.50
Ontario	Nov. 16	32,250	226.00	26.88	
Do	Nov. 18	146,630	855.00	122.19	
Do	do	35,858	412.00	29.88	1.35
Quebec	Nov. 19	59,243	662.00	49.37	2.22
Do	do	71,712	861.00	59.76	2.69
Do	Nov. 20	166,830	1,045.00	126.19	20.73
Do	Nov. 21	116,330	923.00	96.94	14.54
Do	Nov. 22	31,181	359.00	25.96	1.17
Do	Nov. 25	30,912	355.00	25.76	1.16
Do	do	61,286	674.00	51.07	2.30
Do	do	86,430	519.00	73.03	
Do	Nov. 29	94,380	595.00	78.65	11.80
Do	do	71,716	789.00	59.76	2.69
Do	do	123,150	776.00	102.63	15.20
Do	do	64,350	708.00	53.63	2.41
Do	Dec. 2	30,643	352.00	25.54	1.15
Do	do	65,480	753.00	54.57	2.46
Do	Dec. 3	65,480	720.00	54.57	2.46
Do	do	35,920	424.00	29.93	
Do	do	71,820	849.00	59.85	
Do	do	59,860	707.00	49.80	
Do	Dec. 4	35,858	412.00	29.88	1.35
Do	do	71,716	789.00	59.76	2.69
Do	Dec. 6	65,480	753.00	54.57	2.46
Ontario	Dec. 7	32,250	194.00	26.88	
Quebec	Dec. 10	57,960	685.00	48.30	
Do	Dec. 11	216,720	2,994.00	180.00	
Do	do	94,569	596.00	78.81	11.82
Do	do	217,170	1,368.00	180.98	27.15
Ontario	Dec. 12	25,800	181.00	21.50	
Quebec	Dec. 16	154,991	976.00	129.16	19.37
Do	do	35,858	412.00	29.88	1.35
Do	Dec. 17	41,800	263.00	34.83	5.23
Do	do	31,288	360.00	26.07	1.17
Do	do	57,270	401.00	47.72	7.16
Do	Dec. 18	95,004	428.00	79.17	
Ontario	Dec. 20	38,700	271.00	32.25	
Quebec	Dec. 21	155,772	1,012.00	129.81	19.47
Do	Dec. 23	35,549	409.00	29.62	1.33
Do	do	127,462	803.00	106.24	15.93
Do	do	32,500	244.00	27.08	4.06
Do	Dec. 27	56,830	358.00	47.36	7.10
Do	Dec. 30	123,390	777.00	102.83	15.42
Do	Dec. 31	84,000	992.00	70.00	
Do	do	61,960	390.00	51.63	7.75
Do	do	111,945	705.00	93.30	12.99
	1908.				
Do	Jan. 4	77,400	465.00	64.50	
Do	do	102,930	649.00	85.78	12.86
Do	Jan. 9	30,912	355.00	25.76	1.16
Do	do	37,170	439.00	30.98	
Do	Jan. 14	58,790	893.00	48.98	7.35
Do	Jan. 13	53,750	377.00	44.79	
Do	Jan. 15	92,310	581.00	76.93	11.54
Do	Jan. 22	142,199	704.00	118.50	17.78
Do	do	101,820	641.00	84.85	12.75
Do	Jan. 26	178,617	1,138.00	148.83	22.33
Do	Jan. 27	30,100	211.00	25.08	
Do	Jan. 30	71,820	849.00	59.85	
Ontario	Feb. 1	33,325	200.00	27.77	
Quebec	do	35,549	409.00	29.62	1.33
Do	Feb. 5	162,850	1,026.00	128.71	20.36
Ontario	Feb. 11	58,050	407.00	48.37	
Quebec	do	35,549	409.00	29.62	1.33
Do	Feb. 17	35,858	412.00	29.88	1.34
Do	Feb. 18	35,549	409.00	29.62	1.33
Do	do	88,480	558.00	78.73	
Do	do	35,280	417.00	26.40	
Do	Feb. 19	24,368	288.00	20.31	
Do	do	37,170	439.00	30.98	
Do	do	25,540	388.00	51.29	

PORT OF DETROIT, MICH.—Continued.

Exports received from January 1, 1907, to June 1, 1908—Continued.

MECHANICALLY GROUND WOOD PULP—Continued.

Whence arrived.	Date of arrival.	Quantity.	Value.	Specific duty.	Countervailing duty.
	1908.	Pounds.			
Quebec	Feb. 19	20,020	\$152.00	\$16.68	\$2.60
Do.	do.	33,244	405.00	27.70	1.32
Do.	Feb. 24	58,050	407.00	48.38	
Do.	do.	36,540	432.00	30.45	
Do.	do.	76,800	908.00	64.05	
Do.	do.	74,970	886.00	62.48	
Ontario	Feb. 25	108,790	652.00	90.66	
Quebec	Feb. 27	87,170	439.00	30.98	
Do.	do.	38,420	500.00	32.02	
Do.	Feb. 28	35,549	409.00	29.62	1.33
Do.	Mar. 2	57,800	346.00	48.00	
Ontario	Mar. 3	33,540	201.00	27.95	
Quebec	do.	70,479	811.00	58.73	2.64
Do.	do.	35,240	406.00	29.37	1.32
Do.	do.	28,800	173.00	24.00	
Do.	Mar. 5	48,000	288.00	40.00	
Ontario	Mar. 6	27,950	196.00	23.29	
Quebec	Mar. 10	35,554	409.00	29.62	1.33
Do.	Mar. 13	35,858	412.00	29.88	1.34
Ontario	Mar. 17	85,140	510.00	70.93	
Do.	Mar. 23	96,030	570.00	79.19	
Do.	do.	61,336	487.00	51.11	
Quebec	Mar. 25	35,547	409.00	29.62	1.33
Do.	Mar. 27	57,800	346.00	48.00	
Ontario	Mar. 30	34,400	241.00	28.67	
Quebec	do.	35,239	406.00	29.37	1.32
Do.	Apr. 1	38,000	385.00	31.66	
Do.	Apr. 2	81,320	502.00	67.77	
Do.	Apr. 3	32,130	241.00	26.78	4.02
Do.	Apr. 3	57,800	346.00	48.00	
Do.	do.	35,549	409.00	29.62	1.33
Ontario	Apr. 6	75,680	454.00	63.07	
Quebec	Apr. 13	26,396	198.00	21.99	
Ontario	Apr. 14	34,400	241.00	28.67	
Quebec	Apr. 15	19,200	115.00	16.00	
Do.	do.	36,540	290.00	30.45	
Do.	Apr. 17	45,774	354.00	38.15	
Do.	Apr. 18	71,010	447.00	56.17	
Do.	Apr. 21	24,796	195.00	20.66	
Do.	Apr. 23	40,320	254.00	33.60	
Do.	Apr. 24	59,720	478.00	49.77	
Do.	Apr. 27	161,680	970.00	134.73	
Do.	do.	35,858	412.00	29.88	1.35
Do.	do.	60,730	383.00	50.61	
Do.	May 1	37,800	305.00	31.50	
Do.	May 4	22,982	264.00	19.16	
Do.	do.	35,858	412.00	29.88	1.35
Ontario	May 11	64,500	462.00	53.78	
Do.	May 12	119,540	717.00	99.63	
Quebec	do.	35,858	323.00	29.88	1.35
Do.	May 15	270,000	842.00	225.00	33.75
Do.	May 20	60,958	384.00	50.80	
Do.	May 21	57,620	404.00	48.02	
Do.	May 25	27,276	205.00	22.73	
Do.	do.	27,176	203.00	22.65	
Do.	do.	88,099	1,013.00	73.42	2.31
Do.	do.	107,930	680.00	86.94	
Do.	do.	72,108	580.00	60.09	
Ontario	May 26	37,625	226.00	31.35	
Quebec	May 27	127,130	800.00	105.94	
		22,559,766	186,844.00	18,799.74	1,280.62

CHEMICAL UNBLEACHED WOOD PULP.

	1907.				
Quebec	Jan. 2	18,076	\$267.00	\$30.13	\$1.26
Do.	do.	18,074	267.00	30.12	1.23
Ontario	do.	47,788	822.00	79.65	
Quebec	Jan. 4	36,845	672.00	61.41	4.84
Do.	Jan. 5	35,558	542.00	59.26	4.38
Do.	do.	34,813	553.00	58.02	4.39
Do.	do.	18,067	266.00	30.11	1.23

PORT OF DETROIT, MICH.—Continued.

Imports received from January 1, 1907, to June 1, 1908—Continued.

CHEMICALLY UNBLEACHED WOOD PULP—Continued.

Whence arrived.	Date of arrival.	Quantity.	Value.	Specific duty.	Counter-vailing duty.
	1907.	Pounds.			
New Brunswick.....	Jan. 7	37,758	\$356.00	\$62.93	.....
Ontario.....	do.....	22,332	384.00	37.22	.....
Quebec.....	Jan. 8	18,080	266.00	30.05	3.22
Ontario.....	Jan. 10	24,127	415.00	40.21	.....
Quebec.....	Jan. 12	18,033	266.00	30.05	3.22
Do.....	do.....	18,056	266.00	30.09	3.22
Do.....	do.....	18,067	266.00	30.11	3.22
Ontario.....	Jan. 14	24,446	420.00	40.74	.....
Do.....	do.....	24,147	447.00	40.25	.....
Do.....	do.....	24,089	441.00	40.15	.....
New Brunswick.....	Jan. 17	36,302	545.00	60.50	.....
Ontario.....	Jan. 18	26,320	450.00	43.57	.....
Do.....	Jan. 25	46,350	832.00	80.60	.....
Do.....	do.....	24,065	441.00	40.16	.....
Quebec.....	Jan. 28	39,338	724.00	65.56	4.85
Ontario.....	Jan. 31	24,076	414.00	40.13	.....
Quebec.....	Feb. 4	22,587	333.00	37.65	4.08
Ontario.....	do.....	47,640	875.00	79.73	.....
Do.....	Feb. 5	44,568	767.00	74.28	.....
Quebec.....	do.....	22,554	333.00	37.59	4.08
Do.....	Feb. 12	18,042	266.00	30.07	3.22
Ontario.....	Feb. 13	46,490	834.00	80.82	.....
Quebec.....	do.....	18,067	267.00	30.15	3.22
New Brunswick.....	do.....	45,449	682.00	75.75	.....
Ontario.....	Feb. 16	46,250	796.00	77.08	.....
Do.....	Feb. 18	80,231	1,291.00	133.72	9.89
New Brunswick.....	do.....	38,366	575.00	63.94	.....
Ontario.....	Feb. 19	22,152	410.00	36.92	.....
Do.....	Feb. 21	24,128	495.00	40.21	.....
Do.....	do.....	48,256	830.00	80.43	.....
Do.....	Feb. 25	38,850	624.00	64.75	4.79
New Brunswick.....	Feb. 26	53,187	798.00	88.65	.....
Ontario.....	Mar. 21	48,399	832.00	80.67	.....
Quebec.....	Mar. 4	18,081	267.00	30.14	3.22
Do.....	Mar. 9	27,056	399.00	45.09	4.83
Ontario.....	do.....	48,893	841.00	81.49	.....
Quebec.....	Mar. 11	27,087	400.00	45.15	4.83
Ontario.....	do.....	23,900	411.00	39.83	.....
Do.....	Mar. 18	24,219	417.00	40.37	.....
Do.....	Mar. 19	24,115	441.00	40.19	.....
Do.....	Mar. 22	24,089	414.00	40.15	.....
Do.....	Mar. 25	24,024	440.00	40.04	.....
Quebec.....	do.....	18,074	267.00	30.12	3.22
Do.....	Mar. 27	25,280	399.00	42.13	.....
Ontario.....	Apr. 2	53,795	964.00	89.66	.....
Quebec.....	do.....	18,031	266.00	30.05	3.22
Ontario.....	Apr. 5	48,399	886.00	80.67	.....
Do.....	Apr. 8	22,272	406.00	37.12	.....
Do.....	Apr. 9	48,386	832.00	80.64	.....
Do.....	Apr. 25	44,352	812.00	73.92	.....
Do.....	do.....	47,580	818.00	79.30	.....
Do.....	Apr. 27	47,918	824.00	79.86	.....
Do.....	Apr. 29	22,887	338.00	38.15	4.09
Do.....	May 2	48,204	829.00	80.34	.....
Do.....	May 4	47,640	875.00	79.73	.....
Quebec.....	May 7	15,255	225.00	25.43	2.73
Ontario.....	May 11	48,438	886.00	80.73	.....
Quebec.....	May 14	38,808	771.00	64.68	4.78
Ontario.....	May 16	24,232	443.00	40.39	.....
Do.....	May 17	47,100	862.00	78.50	.....
Do.....	May 20	46,850	806.00	78.08	.....
Do.....	May 24	24,375	446.00	40.63	.....
Do.....	May 27	46,700	803.00	77.63	.....
Do.....	May 31	42,780	736.00	71.30	.....
Quebec.....	June 4	15,220	224.00	25.37	2.73
Do.....	do.....	70,490	1,431.00	117.48	.....
Do.....	do.....	73,827	1,351.00	123.05	.....
Ontario.....	June 18	54,950	1,006.00	91.58	.....
Do.....	June 19	53,429	1,059.00	89.05	6.58
Do.....	June 24	51,250	882.00	85.42	.....
Do.....	June 25	50,662	962.00	84.44	.....
Do.....	July 5	49,796	1,036.00	82.99	.....
Do.....	July 11	52,750	907.00	87.92	.....
Quebec.....	July 16	42,453	846.00	70.76	3.22

PORT OF DETROIT, MICH.—Continued.

Imports received from January 1, 1907, to June 1, 1908—Continued.

CHEMICALLY UNBLEACHED WOOD PULP—Continued.

Whence arrived.	Date of arrival.	Quantity.	Value.	Specific duty.	Counter vailing duty.
	1907.	<i>Pounds.</i>			
Ontario.....	July 16	55,890	\$1,163.00	\$93.15	.....
Do.....	July 18	53,500	926.00	89.17	.....
Do.....	July 23	52,875	1,100.00	88.13	.....
Quebec.....	Do.....	27,002	379.00	45.00	24.59
Ontario.....	July 24	24,696	494.00	41.16	.....
Do.....	Do.....	25,184	429.00	41.97	.....
Do.....	Do.....	31,470	645.00	52.45	.....
Do.....	Do.....	51,700	859.00	86.17	.....
Quebec.....	Aug. 7	14,851	214.00	24.75	2.65
Ontario.....	Aug. 9	54,990	1,127.00	91.65	.....
Do.....	Do.....	55,198	949.00	92.00	.....
Do.....	Aug. 13	35,207	662.00	58.68	.....
Quebec.....	Aug. 17	18,024	266.00	30.04	3.23
Ontario.....	Aug. 20	25,170	473.00	41.95	.....
Do.....	Do.....	49,536	852.00	82.56	.....
Do.....	Aug. 27	53,250	1,001.00	88.75	.....
Do.....	Sept. 4	55,120	1,130.00	91.87	.....
Do.....	Sept. 7	53,486	926.00	89.15	.....
Do.....	Sept. 9	58,744	1,204.00	97.90	.....
Do.....	Sept. 10	54,431	936.00	90.72	.....
Do.....	Sept. 11	21,375	541.00	43.96	.....
Do.....	Sept. 13	53,690	923.00	89.48	.....
Do.....	Sept. 16	53,805	1,103.00	89.67	.....
Do.....	Sept. 18	52,625	905.00	87.71	.....
Do.....	Sept. 19	53,200	1,000.00	88.67	.....
Do.....	Do.....	56,160	1,151.00	93.60	.....
Do.....	Sept. 24	59,976	1,230.00	99.96	.....
Do.....	Do.....	50,688	872.00	84.48	.....
Do.....	Oct. 1	54,930	1,034.00	91.65	.....
Do.....	Oct. 3	55,589	1,028.00	92.65	.....
Do.....	Oct. 15	53,397	988.00	89.00	.....
Do.....	Do.....	54,340	1,005.00	90.57	.....
Do.....	Oct. 18	51,050	944.00	85.08	.....
Quebec.....	Oct. 22	18,099	267.00	30.17	3.23
Ontario.....	Oct. 23	53,040	1,103.00	88.40	.....
Do.....	Oct. 28	50,960	1,045.00	84.93	.....
Do.....	Do.....	49,852	1,037.00	83.09	.....
Quebec.....	Oct. 29	18,027	266.00	30.05	3.22
Do.....	Nov. 1	18,057	266.00	30.09	3.23
Ontario.....	Nov. 4	51,570	1,057.00	85.95	.....
Do.....	Nov. 6	51,025	1,061.00	85.04	.....
Do.....	Nov. 9	52,532	1,089.00	87.22	.....
Quebec.....	Nov. 12	18,000	266.00	30.00	3.21
Ontario.....	Nov. 14	50,570	1,037.00	84.28	.....
Quebec.....	Nov. 21	18,000	266.00	30.00	3.22
Ontario.....	Nov. 23	21,520	544.00	44.20	.....
Do.....	Dec. 4	24,713	457.00	41.19	.....
Quebec.....	Dec. 10	36,000	451.00	60.00	6.43
Do.....	Do.....	45,141	666.00	75.24	8.06
Do.....	Dec. 18	18,000	226.00	30.00	3.21
Ontario.....	Dec. 27	48,230	989.00	80.38	.....
Quebec.....	Do.....	45,600	673.00	71.00	8.14
Do.....	Dec. 30	48,230	1,003.00	80.38	.....
Do.....	Dec. 31	39,000	561.00	13.33	6.78
	1908.				
Do.....	Jan. 9	22,800	336.00	38.00	4.07
Do.....	Jan. 13	14,923	320.00	24.87	2.66
Do.....	Jan. 16	72,540	1,415.00	120.90	.....
Do.....	Jan. 18	48,334	943.00	80.56	.....
Do.....	Jan. 19	31,518	583.00	52.53	.....
Ontario.....	Feb. 1	41,930	818.00	78.23	.....
Do.....	Feb. 5	23,543	459.00	39.24	.....
Do.....	Feb. 28	47,944	935.00	79.91	.....
Do.....	Mar. 9	46,000	897.00	76.67	.....
Do.....	Mar. 14	46,904	915.00	78.17	.....
Do.....	Mar. 16	24,141	464.00	40.23	.....
Do.....	Mar. 18	47,788	932.00	79.15	.....
Do.....	Mar. 31	24,070	402.00	40.12	.....
Do.....	May 5	50,678	962.00	84.46	.....
Do.....	May 25	23,465	435.00	39.11	.....
		5,765,833	103,476.00	9,609.79	181.47

PORT OF DETROIT, MICH.—Continued.

Imports received from January 1, 1907, to June 1, 1908—Continued.

NEWS-PRINT PAPER.

Whence arrived.	Date of arrival.	Quantity.	Value.	Specific duty.	Con- ter- v d. ty.
	1907.	<i>Pounds.</i>			
Ontario.....	Jan. 9	32,013	\$560.00	\$96.04	.....
Quebec.....	Jan. 10	32,380	567.00	97.14	.....
Do.....	Apr. 27	150,800	2,743.00	452.40	\$16.59
Do.....	Apr. 29	239,400	4,349.00	718.20	26.33
Do.....	do.....	34,000	622.00	102.00	3.74
Do.....	May 2	243,400	4,427.00	730.20	.....
Do.....	May 4	40,000	730.00	120.00	4.40
Do.....	May 7	131,400	2,398.00	394.20	14.45
Do.....	do.....	77,200	1,419.00	231.60	8.49
Do.....	May 14	30,400	540.00	91.20	3.34
Do.....	May 21	43,900	801.00	131.70	4.83
Do.....	May 27	29,200	533.00	87.60	3.21
Do.....	do.....	126,000	2,343.00	378.00	13.86
Do.....	May 29	38,048	696.00	114.14	.....
Do.....	May 31	153,400	2,876.00	470.20	16.87
Do.....	June 4	36,745	643.00	110.23	9.19
Do.....	June 6	37,075	649.00	111.22	9.28
Do.....	do.....	31,618	553.00	94.85	7.91
Do.....	June 8	50,952	892.00	152.86	12.74
Do.....	June 10	48,400	833.00	145.20	5.32
Do.....	June 15	88,900	1,673.00	266.70	9.78
Do.....	June 18	35,220	616.00	105.66	8.81
Do.....	June 20	31,715	881.00	146.86	9.18
Do.....	do.....	39,555	692.00	118.66	9.89
Do.....	July 9	32,345	613.00	90.98	3.56
Do.....	July 23	37,000	611.00	111.00	.....
Do.....	Aug. 10	182,300	3,464.00	546.90	39.19
Do.....	Aug. 16	283,900	5,394.00	851.70	61.04
Do.....	Aug. 21	45,700	848.00	137.10	9.83
Do.....	Aug. 24	211,000	4,007.00	633.00	45.37
Do.....	Aug. 26	37,700	716.00	113.10	8.11
Do.....	Sept. 12	42,000	798.00	126.00	9.31
Do.....	Sept. 14	180,100	3,479.00	549.30	40.60
Do.....	do.....	39,334	749.00	118.00	8.72
Do.....	Sept. 16	45,300	861.00	135.90	10.05
Do.....	Sept. 20	174,000	3,317.00	523.80	38.72
Do.....	do.....	85,600	1,626.00	256.80	18.98
Do.....	do.....	43,200	821.00	129.60	9.58
Do.....	do.....	43,100	819.00	129.30	9.56
Do.....	Sept. 27	310,200	5,894.00	930.00	68.79
Do.....	Sept. 30	38,900	739.00	116.70	8.36
Do.....	Oct. 21	118,600	2,099.00	355.80	25.56
Do.....	Oct. 22	30,700	583.00	92.10	7.69
Do.....	do.....	35,295	625.00	105.89	7.52
Do.....	Oct. 28	84,540	1,510.00	253.68	21.14
Do.....	do.....	45,361	842.00	136.08	9.66
Do.....	Nov. 18	44,200	840.00	132.00	9.41
Do.....	do.....	28,500	767.00	115.50	8.25
Do.....	do.....	46,577	895.00	139.73	9.92
Do.....	do.....	123,800	2,352.00	371.40	21.37
Do.....	do.....	134,000	2,546.00	402.00	28.54
Do.....	do.....	46,800	889.00	140.40	9.92
Do.....	do.....	43,200	764.00	129.60	10.05
Do.....	Dec. 5	88,416	1,680.00	265.25	.....
	1908.				
Do.....	Jan. 2	40,700	778.00	122.10	8.67
Do.....	Jan. 14	41,559	790.00	124.68	.....
Do.....	Feb. 1	34,800	846.00	104.40	7.13
Ontario.....	do.....	39,254	746.00	117.76	.....
Do.....	do.....	37,909	715.00	113.72	.....
Do.....	do.....	85,359	1,622.00	256.07	.....
Quebec.....	Feb. 7	38,400	933.00	115.20	7.87
Ontario.....	Feb. 11	48,049	920.00	144.14	.....
Quebec.....	do.....	43,000	842.00	129.00	8.82
Do.....	Feb. 21	39,500	776.00	118.50	8.10
Do.....	Feb. 24	63,100	1,030.00	159.30	10.89
Ontario.....	Feb. 26	61,700	982.00	155.10	.....
Quebec.....	do.....	62,300	1,011.00	156.90	10.72
Do.....	do.....	34,900	674.00	104.70	7.15
Do.....	do.....	37,400	680.00	112.20	7.67
Do.....	Mar. 4	38,700	735.00	116.10	7.93
Do.....	Mar. 7	45,500	879.00	136.50	9.33
Ontario.....	Mar. 10	45,284	840.00	135.85	.....
Do.....	Mar. 11	47,700	906.00	143.10	.....

PORT OF DETROIT, MICH.—Continued.

Imports received from January 1, 1907, to June 1, 1908—Continued.

NEWS-PRINT PAPER—Continued.

Whence arrived.	Date of arrival.	Quantity.	Value.	Specific duty.	Counter-vailing duty.
	1907.	<i>Pounds.</i>			
Quebec.....	Mar. 12	47,440	\$917.00	\$142.32	\$9.72
Do.....	do.	40,300	706.00	120.90	8.26
Do.....	Mar. 13	42,000	798.00	126.00	8.61
Ontario.....	Mar. 16	43,348	823.00	130.01	.....
Quebec.....	do.	52,212	1,009.00	156.64	10.70
Do.....	do.	41,578	790.00	124.73	8.53
Do.....	do.	43,120	833.00	129.36	8.84
Ontario.....	Mar. 18	40,538	770.00	121.61	.....
Quebec.....	do.	46,853	905.00	140.57	9.61
Do.....	Mar. 20	54,232	1,048.00	162.70	11.12
Ontario.....	Mar. 23	41,019	779.00	123.06	.....
Quebec.....	Apr. 4	37,599	720.00	112.80	7.71
Ontario.....	Apr. 7	39,431	749.00	118.29	.....
Do.....	do.	59,002	1,129.00	178.21	.....
Quebec.....	Apr. 13	40,500	779.00	120.90	8.26
Do.....	do.	43,405	839.00	130.22	8.90
Ontario.....	Apr. 16	38,664	735.00	115.99	.....
Do.....	May 7	47,135	896.00	141.41	.....
Quebec.....	May 11	37,100	716.00	111.30	7.60
Do.....	May 12	41,600	804.00	124.80	8.53
Do.....	May 15	44,900	868.00	134.70	9.20
Ontario.....	do.	42,805	813.00	128.42	.....
Do.....	May 26	60,200	1,163.00	180.60	12.34
		6,402,296	120,516.00	19,243.53	980.22

PULP WOOD—FREE.

Country.	Date of arrival.	Quantity.	Value.	Country.	Date of arrival.	Quantity.	Value.
	1907.	<i>Cords.</i>			1907.	<i>Cords.</i>	
Ontario.....	May 9	20	\$90	Ontario.....	Aug. 10	700	\$4,550
Do.....	do.	10	45	Do.....	Aug. 23	136	679
Do.....	do.	10	35	Do.....	do.	208	1,248
Do.....	do.	10	35	Quebec.....	Sept. 24	695	5,217
Do.....	May 13	10	45	Do.....	do.	700	4,550
Do.....	do.	10	45	Do.....	do.	450	2,925
Do.....	do.	10	45	Do.....	Oct. 3	700	4,550
Do.....	do.	10	45	Ontario.....	Oct. 9	440	2,925
Do.....	do.	10	45	Do.....	Oct. 15	618	4,039
Do.....	do.	10	30	Do.....	Oct. 24	87	433
Do.....	May 17	10	45	Do.....	Oct. 29	850	5,525
Do.....	July 8	10	60	Do.....	Nov. 13	450	2,925
Do.....	do.	10	60	Do.....	do.	700	4,550
Do.....	July 15	700	4,550	Do.....	Nov. 16	706	4,937
Do.....	do.	450	2,925	Do.....	do.	544	3,770
Do.....	July 30	378	3,384				
Do.....	Aug. 10	500	3,250	Total.....		10,110	68,157

PORT OF DAYTON, OHIO.

Statement showing date of arrival, quantity, value, and duty of wood pulp received at the port of Dayton, Ohio, from Sweden, from January 1, 1907, to June 1, 1908.

Date.	Value.	Quantity.	Duty.	
1907.		<i>Pounds.</i>		
January 31.....	\$801.00	56,353	\$93.92	-----
January 21.....	4,177.00	281,184	485.31	-----
Do.....	2,634.00	183,670	306.12	-----
Do.....	4,717.00	343,430	572.38	-----
February 25.....	4,177.00	293,676	489.46	-----
May 27.....	6,428.00	450,400	750.67	-----
June 28.....	17,682.00	1,243,730	2,072.88	-----
July 3.....	27,326.00	1,901,741	3,169.57	-----
August 10.....	19,709.00	1,373,323	2,288.87	-----
November 4.....	9,382.00	653,763	1,089.61	-----
December 5.....	8,920.00	626,773	1,044.62	\$37.74
December 16.....	1,499.00	118,230	197.05	7.19
December 11.....	4,338.00	308,880	514.80	18.38
1908.				
January 6.....	8,678.00	608,040	1,013.40	86.76
January 20.....	4,885.00	342,207	570.35	20.70
Total.....	125,353.00	8,795,400	14,669.01	120.77

Under paragraphs 395, 396, and 399, no transactions.

PORT OF ERIE, PA.

Tabulated statement of wood pulp (par. 393) and of pulp wood (par. 699) imported into the district of Erie, Pa., from January 1, 1907, to June 1, 1908.

Date imported.	Wood pulp, chemical, unbleached (par. 393).			Pulp wood (par. 699).		
	Quantity.	Value.	Country of origin.	Quantity.	Value.	Country of origin.
1907.	<i>Pounds.</i>			<i>Cords.</i>		
May 16.....				600	\$3,000	Quebec, Ontario, etc.
June 1.....				508	2,540	Do.
June 6.....				545	2,725	Do.
June 12.....				610	3,050	Do.
June 24.....				215	1,075	Do.
June 25.....				542	2,710	Do.
Do.....				603	3,015	Do.
July 5.....				551	2,755	Do.
July 13.....				210	1,155	Do.
July 15.....				535	2,675	Do.
July 20.....				578	2,890	Do.
July 30.....				472	3,255	Do.
August 5.....				235	1,622	Do.
August 6.....				556	2,782	Do.
August 13.....				594	2,970	Do.
August 20.....				435	2,610	Do.
August 21.....				462	3,187	Do.
August 28.....				520	2,860	Do.
September 3.....				599	2,995	Do.
September 6.....				650	4,550	Do.
September 7.....				598	3,284	Do.
September 16.....				469	3,232	Do.
September 20.....				445	3,548	Do.
Do.....				510	2,805	Do.
Do.....				417	2,890	Do.
September 23.....				600	3,300	Do.
Do.....				525	2,625	Do.
October 9.....				554	2,775	Do.
October 15.....				567	3,437	Do.
October 18.....				560	2,800	Do.
October 21.....				550	3,866	Do.
October 24.....				250	1,250	Do.
October 28.....				602	3,311	Do.
November 1.....				530	2,915	Do.
November 9.....	60,776	\$1,171	Germany ^a	405	2,766	Do.
November 13.....				1,080	6,480	Do.
November 18.....				65	506	Do.
November 19.....				510	3,392	Do.
Do.....				411	2,877	Do.
November 25.....						
Total.....	60,776	1,171	-----	20,768	112,480	-----

^a Duty collected, \$101.88.

There were no transactions of filter masse (par. 395) and printing paper (par. 396).

PORT OF NIAGARA FALLS.

Statement of wood pulp, filler masse, printing paper, and pulp woods imported from Canada at the port of Niagara Falls, N. Y., from January 1, 1907, to June 1, 1908.

MECHANICALLY GROUND WOOD PULP.

Date of arrival.	Quantity.	Value.	Duty.	Additional duty.	Date of arrival.	Quantity.	Value.	Duty.	Additional duty.
1907.	Pounds.				1907.	Pounds.			
Jan. 1	19,350	\$97.00	\$16.13	.....	Aug. 28	89,000	\$603.00	\$71.06	.....
7	96,650	481.00	55.55	.....	30	89,534	651.00	72.36	.....
10	45,150	252.00	27.63	.....	Sept. 2	89,430	619.00	72.02	.....
11	19,350	97.00	16.13	.....	4	51,620	309.00	43.01	.....
12	56,760	841.00	47.30	.....	5	25,800	155.00	21.50	.....
14	19,350	97.00	16.13	.....	9	119,892	719.00	99.91	.....
22	25,800	129.00	21.50	.....	10	25,800	155.00	21.50	.....
24	102,770	591.00	85.64	.....	11	26,875	161.00	22.40	.....
28	101,480	611.00	84.57	.....	12	25,800	181.00	21.50	.....
Feb. 4	53,750	295.00	44.79	.....	13	27,144	163.00	22.02	.....
5	27,950	140.00	23.30	.....	14	81,700	490.00	68.08	.....
11	54,180	325.00	45.15	.....	16	132,213	893.00	110.20	.....
12	34,400	206.00	28.67	.....	18	26,144	157.00	21.79	.....
15	34,400	172.00	28.67	.....	19	34,221	205.00	28.52	.....
18	55,900	336.00	46.59	.....	21	46,538	299.00	38.79	.....
21	18,705	94.00	15.69	.....	23	28,235	199.00	23.53	.....
25	58,480	351.00	48.73	.....	28	33,951	214.00	28.29	.....
Mar. 6	75,250	451.00	62.71	.....	30	144,726	898.00	120.61	.....
9	24,510	123.00	20.43	.....	Oct. 3	56,812	341.00	47.34	.....
19	52,760	340.00	47.30	.....	5	51,600	310.00	43.00	.....
30	82,270	494.00	68.56	.....	11	30,000	135.00	25.00	.....
Apr. 1	25,800	154.00	21.50	.....	18	64,500	452.00	53.74	.....
18	28,380	170.00	23.65	.....	21	34,400	206.00	28.67	.....
23	25,800	155.00	21.50	.....	22	53,220	274.00	44.35	.....
May 2	32,500	146.00	27.09	.....	25	51,600	336.00	43.00	.....
3	30,000	135.00	25.00	.....	28	30,100	211.00	25.08	.....
6	82,580	495.00	68.80	.....	Nov. 11	70,100	315.00	58.33	.....
8	30,100	181.00	25.10	.....	16	28,380	170.00	23.65	.....
13	30,000	135.00	25.00	.....	19	25,800	155.00	21.50	.....
14	77,400	465.00	64.50	.....	25	25,800	155.00	21.50	.....
15	23,580	141.00	19.65	.....	29	25,800	155.00	21.50	.....
18	34,823	210.00	29.02	.....	Dec. 3	107,500	537.00	89.58	.....
21	86,430	519.00	72.03	.....	4	34,400	241.00	28.67	.....
23	33,212	195.00	27.68	.....	6	27,950	168.00	23.29	.....
25	30,360	170.00	25.30	.....	7	25,800	155.00	21.50	.....
29	30,380	170.00	25.30	.....	9	27,950	196.00	23.29	.....
June 1	23,650	142.00	19.71	.....	12	23,650	142.00	19.71	.....
3	54,157	325.00	45.13	.....	16	30,100	211.00	25.01	.....
5	31,175	187.00	25.98	.....	17	30,100	181.00	25.08	.....
11	56,760	340.00	47.30	.....	18	28,380	170.00	23.65	.....
14	30,100	211.00	25.08	.....	20	53,750	376.00	44.79	.....
15	31,046	186.00	25.87	.....	21	68,800	482.00	57.33	.....
17	25,800	155.00	21.50	.....	26	30,100	181.00	25.08	.....
18	25,800	155.00	21.50	.....	31	57,580	287.00	47.98	\$10.28
22	84,375	506.00	70.31	.....	1908.				
24	55,255	331.00	46.05	.....	Jan. 9	61,824	401.00	51.53	.....
26	54,180	325.00	45.15	.....	11	42,141	196.00	23.29	.....
29	25,800	155.00	21.50	.....	20	60,900	422.00	50.17	.....
July 3	23,550	141.00	19.63	.....	27	129,430	768.00	107.87	.....
5	68,800	413.00	57.34	.....	28	47,135	226.00	26.87	.....
6	27,600	155.00	23.00	.....	29	77,922	580.00	64.94	.....
8	116,428	682.00	96.19	.....	31	25,800	181.00	21.50	.....
11	30,659	186.00	25.55	.....	Feb. 4	83,495	215.00	37.61	2.15
12	61,038	368.00	51.09	.....	5	30,100	211.00	25.08	.....
16	52,046	311.00	43.37	.....	15	88,150	618.00	78.46	.....
18	64,564	382.00	53.80	.....	19	27,950	196.00	23.29	.....
30	30,000	135.00	25.00	.....	Mar. 3	66,650	467.00	55.54	.....
22	52,670	316.00	43.89	.....	4	33,708	202.00	28.09	.....
25	26,408	158.00	22.01	.....	9	28,380	170.00	23.65	.....
29	55,255	331.00	46.04	.....	14	84,400	241.00	28.66	.....
Aug. 5	66,650	400.00	55.55	.....	16	28,380	170.00	23.65	.....
7	33,011	203.00	27.51	.....	Apr. 9	33,942	203.00	28.29	.....
8	86,000	603.00	71.66	.....	10	25,800	155.00	21.50	.....
13	32,098	193.00	26.75	.....	13	28,380	171.00	23.65	.....
14	22,602	135.00	18.84	.....	17	74,911	449.00	62.43	.....
16	24,948	150.00	27.90	.....	23	28,380	170.00	23.65	.....
17	106,554	640.00	88.80	.....	May 8	36,176	216.00	30.15	.....
19	30,100	211.00	25.08	.....		72,683	470.00	60.53	.....
21	25,800	181.00	21.50	.....				
23	30,000	135.00	25.00	.....				
26	54,180	325.00	45.15	.....				
						6,528,609	39,657.00	5,433.52	12.43

PORT OF NIAGARA FALLS—Continued.

Statement of wood pulp, filler masses, printing paper, and pulp woods imported from Canada at the port of Niagara Falls, N. Y., from January 1, 1907, to June 1, 1908—Continued.

CHEMICAL WOOD PULP. (Unbleached).

[No bleached imported here.]

Date of arrival.	Quantity.	Value.	Duty.	Additional duty.	Date of arrival.	Quantity.	Value.	Duty.	Additional duty.
1907.	Pounds.				1907.	Pounds.			
Jan. 5	46,437	\$864.00	\$77.40	.....	Aug. 31	24,762	\$490.00	\$41.27	.....
10	62,719	1,126.00	104.53	\$4.66	Sept. 4	125,092	2,335.00	208.45	\$15.44
10	43,240	800.00	72.07	.....	9	87,911	1,512.00	146.51	10.82
11	40,405	715.00	67.34	4.90	10	123,922	2,306.00	206.53	8.62
14	38,701	676.00	64.50	4.76	12	27,040	535.00	45.07	.....
16	22,560	444.00	37.60	.....	25	55,614	1,062.00	92.69	.....
17	26,320	505.00	43.87	.....	26	82,960	1,603.00	138.26	.....
18	45,960	850.00	76.60	.....	30	54,834	1,048.00	91.39	.....
19	41,402	733.00	69.00	5.10	Oct. 2	55,198	1,054.00	92.00	.....
21	45,660	845.00	76.10	.....	7	27,378	542.00	45.63	.....
24	41,826	734.00	69.71	5.15	12	53,540	1,023.00	89.27	.....
28	24,646	170.00	41.08	3.03	16	25,590	507.00	42.15	.....
29	22,320	440.00	37.20	.....	19	52,871	1,010.00	88.12	.....
30	46,500	860.00	77.50	.....	22	52,650	1,006.00	87.75	.....
31	24,115	463.00	40.19	.....	23	52,351	1,000.00	87.25	.....
Feb. 7	71,188	1,317.00	118.65	.....	29	52,128	996.00	86.28	.....
18	23,998	473.00	40.00	.....	Nov. 6	51,738	988.00	86.23	.....
20	68,862	1,274.00	114.77	.....	12	43,888	842.00	73.18	.....
22	48,230	892.00	80.38	.....	15	49,439	944.00	82.40	.....
27	24,128	446.00	40.21	.....	20	26,150	518.00	43.58	.....
28	48,282	893.00	80.47	.....	21	48,360	923.00	80.60	.....
Mar. 6	40,931	757.00	68.22	.....	Dec. 4	58,440	1,116.00	97.40	.....
9	39,497	692.00	65.83	4.87	5	24,973	477.00	41.62	.....
12	46,542	745.00	77.57	5.59	8	48,230	921.00	80.30	.....
16	47,165	754.00	78.31	5.81	12	75,348	1,366.00	125.58	.....
18	73,659	1,295.00	122.76	9.18	28	47,814	913.00	79.70	.....
18	47,465	818.00	79.11	5.85	31	57,580	287.00	47.98	10.28
19	24,362	451.00	40.10	.....				
22	48,250	892.00	80.38	.....	1908.				
25	24,193	448.00	40.32	.....	Jan. 2	55,740	1,065.00	92.90	.....
27	39,070	723.00	65.12	.....	3	24,245	480.00	40.41	.....
28	48,204	891.00	80.34	.....	7	23,777	454.00	39.63	.....
Apr. 9	48,516	898.00	80.66	.....	9	48,009	960.00	80.02	.....
16	22,428	475.00	37.38	.....	13	48,334	969.00	80.56	.....
27	46,251	764.00	77.09	5.31	6	47,998	960.00	79.99	.....
27	22,236	434.00	27.06	.....	10	48,230	965.00	80.38	.....
29	40,500	680.00	67.50	5.00	14	48,256	965.00	80.43	.....
May 3	47,840	895.00	79.73	.....	21	72,302	1,412.00	120.50	.....
8	48,648	900.00	81.08	.....	24	54,180	1,056.00	90.30	.....
21	44,904	832.00	74.84	.....	27	24,115	446.00	40.19	.....
23	22,380	452.00	37.10	.....	29	47,840	957.00	79.73	.....
June 3	72,930	1,374.00	121.55	.....	Mar. 3	48,048	961.00	80.08	.....
3	24,193	496.00	40.32	.....	4	48,064	969.00	80.77	.....
6	48,789	903.00	81.32	.....	10	47,918	958.00	79.86	.....
12	49,348	913.00	82.25	.....	14	47,593	952.00	79.32	.....
14	26,195	511.00	43.66	.....	18	47,684	953.00	79.48	.....
21	50,167	928.00	83.62	.....	23	40,987	754.00	68.31	5.06
27	46,180	811.00	76.97	.....	25	71,604	1,396.00	119.34	.....
27	50,315	930.00	83.86	5.69	26	23,348	234.00	38.91	.....
28	26,098	514.00	43.50	.....	Apr. 20	70,990	1,376.00	118.30	.....
July 6	49,920	924.00	83.20	.....	25	46,800	781.00	78.00	5.77
22	53,040	961.00	88.40	.....	28	71,858	1,373.00	119.76	.....
29	51,500	953.00	85.84	.....	May 5	47,060	899.00	78.34	.....
30	53,000	1,012.00	88.33	.....	9	77,755	1,383.00	129.58	9.57
Aug. 2	95,235	1,617.00	158.73	11.70	28	47,346	904.00	78.91	.....
9	54,483	1,041.00	90.81	.....				
10	27,209	539.00	45.35	.....				
20	54,418	1,039.00	90.70	.....				
						5,279,430	98,137.00	8,731.36	152.15

PORT OF NIAGARA FALLS—Continued.

Statement of wood pulp, filter masse, printing paper, and pulp woods imported from Canada at the port of Niagara Falls, N. Y., from January 1, 1907, to June 1, 1908—Continued.

FILTER MASSE (OR FILTER STOCK).

No importations at this port under paragraph 395.

PRINTING PAPER.

[Under paragraph 396.]

Date of arrival.	Quantity.	Value.	Duty.	Rate of duty.
1907.				
July 30.....	<i>Pounds.</i> 36,225	\$670.00	\$108.08	<i>Cents.</i> 0.3 per pound.
Dec. 9.....	30,624	689.00	122.50	.4 per pound.
12.....	37,765	699.00	113.30	.3 per pound.
	104,614	2,058.00	344.48	

The first and last items were entered at three-tenths of 1 cent per pound and the other one at four-tenths of a cent per pound.

PULP WOODS.

[Under par. 699.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1907.			1907.			1907.		
Jan. 1.....	<i>Cords.</i> 100	\$540.00	Mar. 26.....	13	\$78.00	July 26.....	1,235	\$6,175.00
2.....	15	69.00	27.....	96	402.00	30.....	439	2,195.00
3.....	62	255.00	Apr. 1.....	16	76.00	Aug. 1.....	506	2,530.00
4.....	17	68.00	2.....	22	105.00	3.....	490	2,420.00
5.....	8	32.00	3.....	11	77.00	8.....	12	60.00
7.....	90	494.00	6.....	60	360.00	14.....	609	3,045.00
8.....	31	149.00	8.....	120	720.00	15.....	496	2,490.00
9.....	15	69.00	11.....	93	449.00	23.....	14	75.00
10.....	81	472.00	Apr. 12.....	30	180.00	27.....	843	4,215.00
11.....	16	64.00	15.....	16	80.00	29.....	555	2,775.00
12.....	96	510.00	18.....	146	608.00	Sept. 3.....	773	3,865.00
14.....	68	298.00	20.....	20	120.00	7.....	461	2,305.00
15.....	27	134.00	25.....	20	120.00	11.....	18	77.00
16.....	17	77.00	26.....	20	120.00	21.....	434	2,170.00
17.....	20	120.00	27.....	20	120.00	25.....	1,217	6,080.00
18.....	8	32.00	May 1.....	50	300.00	26.....	18	77.00
19.....	24	92.00	3.....	201	1,134.00	Oct. 8.....	16	64.00
21.....	18	72.00	6.....	20	120.00	9.....	24	98.00
22.....	30	131.00	8.....	92	453.00	1.....	33	139.00
23.....	22	94.00	9.....	100	600.00	1,882	9,410.00	
25.....	15	60.00	13.....	10	60.00	17.....	27	80.00
26.....	66	281.00	16.....	207	1,038.00	Oct. 21.....	353	1,765.00
29.....	58	276.00	20.....	10	60.00	24.....	824	2,624.00
30.....	14	56.00	23.....	30	180.00	26.....	635	3,175.00
Feb. 4.....	137	768.00	25.....	74	370.00	29.....	451	2,255.00
6.....	30	180.00	27.....	74	370.00	31.....	16	68.00
7.....	268	1,446.00	31.....	50	300.00	Nov. 4.....	30	128.00
8.....	52	208.00	June 8.....	18	92.00	7.....	15	72.00
12.....	74	343.00	4.....	156	732.00	9.....	16	66.00
13.....	18	72.00	5.....	90	540.00	15.....	22	111.00
14.....	68	291.00	10.....	30	180.00	16.....	46	182.00
16.....	99	456.00	12.....	40	240.00	19.....	11	49.00
19.....	16	64.00	14.....	44	196.00	23.....	19	65.00
21.....	66	255.00	15.....	60	360.00	25.....	17	60.00
23.....	102	536.00	18.....	1,062	4,248.00	Dec. 30.....	1,743	9,356.00
26.....	21	123.00	19.....	10	60.00	2.....	12	66.00
27.....	15	45.00	22.....	10	60.00	4.....	51	221.00
Mar. 1.....	18	72.00	24.....	500	1,962.00	5.....	12	62.00
4.....	50	227.00	26.....	34	191.00	6.....	14	62.00
5.....	27	100.00	27.....	870	3,480.00	7.....	11	55.00
6.....	92	424.00	July 3.....	623	2,492.00	10.....	12	66.00
9.....	24	136.00	6.....	647	2,598.00	11.....	747	4,263.00
14.....	162	906.00	10.....	10	60.00	12.....	48	265.00
18.....	63	297.00	17.....	514	2,056.00	16.....	43	221.00
19.....	10	60.00	19.....	95	570.00	21.....	18	90.00
20.....	78	372.00	22.....	12	60.00	30.....	16	73.00
25.....	20	120.00	25.....	10	60.00			

PORT OF NIAGARA FALLS—Continued.

Statement of wood pulp, filler masse, printing paper, and pulp woods imported from Canada at the port of Niagara Falls, N. Y., from January 1, 1907, to June 1, 1908—Continued.

PULP WOODS—Continued.

[Under par. 699.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1908.	<i>Cords.</i>		1908.	<i>Cords.</i>		1908.	<i>Cords.</i>	
Jan. 2.....	45	\$272.00	Feb. 24.....	68	\$345.00	Apr. 24.....	18	\$50.00
6.....	64	250.00	Mar. 3.....	15	73.00	27.....	56	814.00
9.....	34	135.00	14.....	60	309.00	2.....	64	865.00
11.....	11	58.00	24.....	36	186.00	May 1.....	56	816.00
13.....	45	225.00	27.....	82	160.00	5.....	21	424.00
15.....	9	45.00	Apr. 4.....	35	176.00	10.....	10	70.00
22.....	14	73.00	6.....	17	93.00	12.....	10	70.00
28.....	28	140.00	8.....	10	60.03	13.....	30	190.00
29.....	12	48.00	9.....	55	272.00	15.....	10	70.00
Feb. 3.....	31	124.00	13.....	10	70.00	29.....	15	75.00
6.....	11	55.00	14.....	65	311.00			
11.....	14	70.00	15.....	14	78.00			
19.....	17	88.00	23.....	33	147.00			
							24,940	123,899.00

PORT OF BUFFALO.

Statement of importations under paragraphs 393, 396, and 699 of the tariff act of July 24, 1897, at the port of Buffalo, N. Y., from January 1, 1907, to June 1, 1908, showing the date of arrival, quantity, appraised value, rate of duty, country of origin, the amount of additional duties, and duties collected thereon under the provisions of paragraphs 393 and 396.

WOOD PULP.

[Paragraph 393.]

Date of arrival.	Quantity.	Value.	Rate.	Duties.	Counter-vailing duty.	From where imported.
1907.	<i>Pounds.</i>					
January 3.....	77,400	\$464	One-twelfth of a cent...	\$64.50		Canada.
January 5.....	35,858	359	do.....	29.88	\$1.34	Do.
February 21.....	40,521	705	One-sixth of a cent.....	67.64	7.25	Do.
March 3.....	28,380	170	One-twelfth of a cent.....	23.65		Do.
March 20.....	77,400	464	do.....	64.50		Do.
March 31.....	24,128	514	One-sixth of a cent.....	40.21		Do.
April 27.....	22,575	135	One-twelfth of a cent.....	18.81		Do.
May 22.....	24,349	470	One-sixth of a cent.....	40.58		Do.
June 2.....	96,704	1,944	do.....	161.17	11.91	Do.
July 3.....	23,029	138	One-twelfth of a cent.....	19.19		Do.
July 8.....	39,520	788	One-sixth of a cent.....	65.87	4.80	Do.
August 24.....	39,695	806	do.....	66.16	4.90	Do.
August 26.....	43,595	861	do.....	72.66	5.38	Do.
September 10.....	85,661	1,594	do.....	142.77	10.67	Do.
Do.....	46,086	819	do.....	76.80	5.80	Do.
September 11.....	45,027	870	do.....	75.05	5.66	Do.
October 5.....	38,210	755	do.....	63.69	4.81	Do.
October 30.....	42,456	843	do.....	70.76	5.23	Do.
Do.....	50,980	893	do.....	84.93		Do.
November 7.....	36,243	721	do.....	60.41	4.58	Do.
November 28.....	40,591	810	do.....	67.66	5.00	Do.
December 11.....	66,833	1,290	do.....	111.39		Do.
December 26.....	93,525	655	One-twelfth of a cent.....	77.94		Do.
December 28.....	40,751	806	One-sixth of a cent.....	67.92	5.03	Do.
1908.						
January 1.....	55,900	392	One-twelfth of a cent.....	46.58		Do.
January 3.....	57,639	679	One-sixth of a cent.....	62.74	4.74	Do.
Do.....	86,000	603	One-twelfth of a cent.....	71.66		Do.
January 7.....	47,619	871	One-sixth of a cent.....	79.37		Do.
January 13.....	71,858	1,316	do.....	119.76		Do.
February 13.....	47,723	873	do.....	79.54		Do.
Do.....	30,865	571	do.....	51.44	3.91	Do.
February 15.....	71,897	1,316	do.....	119.83		Do.
Do.....	70,707	1,294	do.....	117.84		Do.

PORT OF BUFFALO—Continued.

Statement of importations under paragraphs 393, 396, and 699 of the tariff act of July 24, 1897, at the port of Buffalo, N. Y., from January 1, 1907, to June 1, 1908, etc.—Continued.

WOOD PULP—Continued.

[Paragraph 393.]

Date of arrival.	Quantity.	Value.	Rate.	Duties.	Counter-vailing duty.	From where imported.
1908.	<i>Pounds.</i>					
February 19.....	38,671	\$660	One-sixth of a cent....	\$64.45	\$4.87	Canada.
Do.....	68,265	1,249	.....do.....	113.77	.....	Do.
February 23.....	70,646	1,295	.....do.....	117.91	.....	Do.
February 24.....	44,220	809	.....do.....	78.70	.....	Do.
February 26.....	68,265	1,249	.....do.....	113.77	.....	Do.
February 28.....	72,579	1,328	.....do.....	120.96	.....	Do.
May 12.....	74,572	1,072	.....do.....	124.30	9.20	Do.
Total.....	2,116,923	33,458	.....	3,111.66	105.08	

Mechanically ground wood pulp yields one-twelfth of a cent per pound duty; chemical wood pulp, unbleached, one-sixth of a cent per pound.

No importations of filter masse or stock under paragraph 395, tariff act of 1897, during the period from January 1, 1907, to June 1, 1908.

PRINTING PAPER.

[Under paragraph 396.]

Date of arrival.	Quantity.	Value.	Rate.	Duties.	Counter-vailing duties.	From where imported.
1907.	<i>Pounds.</i>					
January 29.....	54,738	\$985	Three-tenths of a cent..	\$164.21		Canada.
February 6.....	59,132	934	do.....	177.40		Do.
February 19.....	36,225	652	do.....	108.68		Do.
February 25.....	40,765	645	do.....	122.30		Do.
March 2.....	42,057	645	do.....	126.18		Do.
Do.....	29,349	508	do.....	88.05		Do.
March 18.....	37,299	564	do.....	111.90		Do.
March 25.....	46,511	692	do.....	139.53		Do.
April 2.....	42,891	729	do.....	128.67		Do.
April 9.....	35,634	558	do.....	106.90		Do.
April 15.....	46,101	830	do.....	138.33		Do.
April 19.....	81,134	1,460	do.....	243.39		Do.
April 21.....	81,134	492	do.....	93.40		Do.
April 22.....	51,707	776	do.....	155.12		Do.
Do.....	49,630	744	do.....	143.89		Do.
April 23.....	28,204	556	do.....	84.61		Do.
April 24.....	31,178	572	do.....	95.33		Do.
April 29.....	67,376	1,213	do.....	202.13		Do.
May 6.....	42,402	670	do.....	127.21		Do.
May 7.....	43,659	720	do.....	130.98		Do.
Do.....	43,374	781	do.....	130.12		Do.
May 8.....	38,327	705	do.....	114.98		Do.
May 9.....	35,895	527	do.....	106.19		Do.
Do.....	37,299	671	do.....	111.90		Do.
May 11.....	69,375	1,032	do.....	202.13		Do.
May 13.....	33,864	504	do.....	101.59		Do.
Do.....	79,890	1,198	do.....	239.58		Do.
May 16.....	40,669	805	do.....	122.01		Do.
May 23.....	48,245	718	do.....	144.74		Do.
May 24.....	43,582	648	do.....	130.75		Do.
May 26.....	41,805	773	do.....	125.42		Do.
May 28.....	82,886	1,531	do.....	248.57		Do.
June 4.....	42,215	667	do.....	126.67		Do.
June 11.....	48,927	905	do.....	146.78		Do.
June 25.....	36,809	681	do.....	110.43		Do.
July 5.....	41,690	775	do.....	125.64		Do.
July 9.....	44,852	709	do.....	134.56		Do.
Do.....	38,350	654	do.....	100.05		Do.
July 20.....	40,212	635	do.....	120.64		Do.
July 28.....	39,950	590	do.....	89.85		Do.
August 18.....	96,909	1,056	do.....	287.91		Do.

PORT OF BUFFALO—Continued.

Statement of importations under paragraphs 393, 396, and 699 of the tariff act of July 24, 1897, at the port of Buffalo, N. Y., from January 1, 1907, to June 1, 1908, etc.—Continued.

PRINTING PAPER—Continued.

[Under paragraph 396.]

Date of arrival.	Quantity.	Value.	Rate.	Duties.	Counter-vailing duty.	From where imported.
1907.						
August 30.....	<i>Pounds.</i> 36,895	\$681	Three-tenths of a cent.	\$110.42	.....	Canada.
October 9.....	41,791	660	.....do.....	125.37	.....	Do.
October 21.....	81,420	1,107	.....do.....	244.26	.....	Do.
November 1.....	91,157	1,686	.....do.....	273.48	.....	Do.
November 20.....	40,403	747	.....do.....	121.21	.....	Do.
November 29.....	38,606	714	.....do.....	115.82	.....	Do.
December 2.....	38,538	713	.....do.....	115.61	.....	Do.
1908.						
January 4.....	41,079	781	.....do.....	123.24	.....	Do.
January 9.....	39,676	983	.....do.....	119.03	.....	Do.
January 21.....	49,584	942	.....do.....	148.75	.....	Do.
January 24.....	42,100	806	.....do.....	126.30	\$8.97	Do.
January 29.....	49,536	941	.....do.....	148.61	.....	Do.
February 2.....	38,500	737	.....do.....	115.50	7.89	Do.
February 8.....	89,364	1,668	.....do.....	248.08	.....	Do.
February 15.....	41,559	790	.....do.....	124.08	.....	Do.
February 23.....	41,781	800	.....do.....	125.34	8.57	Do.
March 4.....	39,750	755	.....do.....	119.25	.....	Do.
March 10.....	40,111	762	.....do.....	120.34	.....	Do.
Do.....	39,835	757	.....do.....	119.51	.....	Do.
March 11.....	45,184	858	.....do.....	135.66	.....	Do.
March 12.....	42,517	808	.....do.....	127.55	.....	Do.
March 18.....	37,462	712	.....do.....	112.39	.....	Do.
March 25.....	35,319	676	.....do.....	105.96	7.24	Do.
March 30.....	38,580	739	.....do.....	115.74	7.91	Do.
Do.....	41,786	794	.....do.....	125.36	.....	Do.
April 3.....	52,411	1,004	.....do.....	157.23	10.74	Do.
April 13.....	41,059	780	.....do.....	123.15	.....	Do.
April 15.....	36,460	698	.....do.....	109.38	7.47	Do.
April 20.....	43,119	819	.....do.....	129.36	.....	Do.
April 29.....	44,827	852	.....do.....	134.48	.....	Do.
May 18.....	39,509	751	.....do.....	118.53	.....	Do.
May 22.....	36,569	695	.....do.....	109.71	.....	Do.
May 26.....	39,896	757	.....do.....	119.69	.....	Do.
1907.						
February 9.....	44,200	1,910	15 per cent.	286.50	.....	Italy.
April 11.....	18,300	1,015	.....do.....	152.25	.....	Do.
May 18.....	16,100	905	.....do.....	135.75	.....	Do.
June 5.....	32,280	1,714	.....do.....	257.10	.....	Do.
June 8.....	50,150	2,707	.....do.....	406.05	.....	Do.
September 13.....	55,160	3,008	.....do.....	451.20	.....	Do.
November 12.....	15,280	814	.....do.....	122.10	.....	Do.
November 14.....	28,000	1,501	.....do.....	225.15	.....	Do.
1908.						
May 12.....	40,000	2,180	.....do.....	327.00	.....	Do.
Total.....	3,701,703	74,977	.....do.....	12,565.71	58.79	

PORT OF BUFFALO—Continued.

Statement of importations under paragraphs 593, 596, and 699 of the tariff act of July 24, 1897, at the port of Buffalo, N. Y., from January 1, 1907, to June 1, 1908, etc.—Continued.

PULPWOOD FROM CANADA.

[Under paragraph 693.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1907.	Cords.		1907.	Cords.	
January 6.....	18	\$72	May 2.....	10	\$35
February 14.....	16	96	3.....	16	64
14.....	8	48	3.....	8	32
16.....	20	60	6.....	10	32
16.....	20	60	5.....	8	32
21.....	10	30	5.....	8	32
21.....	10	48	6.....	24	96
24.....	10	30	7.....	10	32
24.....	20	70	7.....	8	32
25.....	10	35	7.....	8	32
25.....	10	35	7.....	8	32
25.....	10	35	7.....	10	32
26.....	8	32	7.....	20	65
27.....	10	32	8.....	8	48
March 10.....	10	34	8.....	10	32
11.....	8	22	8.....	8	24
12.....	10	32	9.....	10	32
12.....	10	32	9.....	8	32
14.....	10	30	9.....	8	32
14.....	10	30	9.....	8	32
15.....	10	30	13.....	16	64
15.....	10	30	13.....	8	32
21.....	10	30	14.....	10	32
25.....	10	35	15.....	20	80
25.....	20	70	15.....	10	32
28.....	16	64	17.....	8	32
28.....	8	32	18.....	10	32
28.....	8	32	21.....	8	32
28.....	10	32	24.....	8	32
28.....	10	30	24.....	8	32
28.....	24	96	25.....	8	32
30.....	8	32	25.....	8	32
31.....	8	32	27.....	8	32
April 2.....	20	90	27.....	8	32
2.....	20	90	28.....	16	64
3.....	10	45	28.....	8	32
3.....	10	30	29.....	8	32
4.....	80	96	29.....	8	32
4.....	16	64	31.....	8	32
6.....	10	60	June 1.....	8	32
10.....	8	32	1.....	8	32
11.....	8	32	1.....	8	32
15.....	10	32	2.....	8	32
15.....	8	32	2.....	16	64
15.....	8	32	2.....	10	50
16.....	8	32	3.....	9	45
19.....	16	64	3.....	8	32
19.....	8	32	4.....	8	32
20.....	8	32	4.....	12	90
20.....	8	32	5.....	8	32
21.....	8	32	7.....	8	32
22.....	16	64	7.....	16	64
22.....	24	96	7.....	16	64
23.....	9	45	7.....	9	45
24.....	8	32	7.....	8	32
24.....	8	32	7.....	8	32
24.....	8	32	7.....	8	32
26.....	8	32	10.....	8	32
26.....	10	40	10.....	9	45
26.....	10	40	10.....	9	45
29.....	10	50	15.....	9	45
29.....	10	45	16.....	9	45
29.....	8	32	17.....	16	64
29.....	8	32	18.....	8	32
29.....	8	32	18.....	8	32
29.....	8	32	20.....	8	32
May 1.....	24	96	23.....	8	32
1.....	8	32	23.....	8	32
1.....	8	32	23.....	8	32
1.....	10	40	23.....	8	32
2.....	20	65	23.....	8	32

PORT OF BUFFALO—Continued.

Statement of importations under paragraphs 393, 396, and 699 of the tariff act of July 24, 1897, at the port of Buffalo, N. Y., from January 1, 1907, to June 1, 1908, etc.—Continued.

PULPWOOD FROM CANADA—Continued.

[Under paragraph 699.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1907.	<i>Cords.</i>		1908	<i>Cords.</i>	
June 26.....	10	\$48	January 13.....	10	\$85
26.....	8	32	14.....	12	84
26.....	8	32	18.....	11	77
28.....	9	45	18.....	10	55
29.....	16	64	20.....	14	98
July 11.....	10	40	20.....	13	91
11.....	8	32	20.....	12	84
11.....	8	32	20.....	10	55
12.....	12	60	20.....	10	55
14.....	8	32	20.....	9	50
15.....	12	60	20.....	9	50
16.....	8	32	20.....	12	60
18.....	8	32	21.....	10	70
22.....	8	32	21.....	10	55
24.....	10	50	22.....	10	45
26.....	8	32	23.....	14	98
26.....	9	45	23.....	10	70
27.....	10	60	23.....	12	60
27.....	8	32	24.....	14	70
August 2.....	10	55	24.....	14	65
2.....	8	32	26.....	10	70
September 5.....	10	55	26.....	10	70
7.....	18	99	26.....	10	60
7.....	10	50	28.....	10	50
7.....	10	50	26.....	00	00
7.....	10	50	26.....	10	60
7.....	10	50	27.....	11	53
9.....	10	50	27.....	18	90
14.....	18	99	28.....	00	00
14.....	10	70	29.....	13	91
18.....	10	50	29.....	10	60
19.....	10	60	29.....	12	58
24.....	10	65	February 1.....	13	91
24.....	10	65	1.....	13	65
November 16.....	10	65	4.....	12	84
16.....	10	65	4.....	10	65
23.....	10	65	4.....	10	65
23.....	10	65	4.....	10	65
23.....	10	65	4.....	10	55
23.....	15	60	5.....	10	65
26.....	8	44	5.....	10	55
December 4.....	12	75	5.....	10	50
2.....	10	65	7.....	13	65
4.....	11	41	7.....	14	55
6.....	14	24	7.....	10	50
8.....	11	32	8.....	12	60
8.....	9	29	10.....	10	50
10.....	9	29	12.....	12	70
20.....	13	38	12.....	9	45
20.....	12	37	12.....	9	45
20.....	12	35	12.....	12	60
20.....	11	35	12.....	15	98
24.....	13	52	17.....	10	70
24.....	13	38	17.....	9	45
27.....	12	38	17.....	10	48
27.....	13	37	17.....	10	30
29.....	14	56	17.....	10	65
29.....	12	48	17.....	10	65
29.....	13	65	18.....	10	30
29.....	12	61	18.....	10	65
1908.			18.....	10	65
January 1.....	14	56	18.....	12	60
2.....	13	38	19.....	10	80
2.....	13	65	18.....	10	50
2.....	11	44	18.....	12	60
2.....	10	40	19.....	12	55
3.....	19	58	20.....	13	91
6.....	12	50	20.....	10	30
9.....	12	84	20.....	14	70
9.....	10	70	20.....	13	65
13.....	13	91	20.....	10	65

PORT OF BUFFALO—Continued.

Statement of importations under paragraphs 393, 396, and 699 of the tariff act of July 24, 1897, at the port of Buffalo, N. Y., from January 1, 1907, to June 1, 1908, etc.—Continued.

PULPWOOD FROM CANADA—Continued.

[Under paragraph 699.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
February 1908.	<i>Cords.</i>		March 1908.	<i>Cords.</i>	
20.....	10	\$55	8.....	9	\$45
20.....	10	55	8.....	11	44
20.....	20	160	9.....	14	68
21.....	12	60	9.....	13	66
21.....	9	45	9.....	10	60
21.....	10	40	9.....	11	55
22.....	12	60	9.....	13	64
22.....	10	84	9.....	14	70
22.....	13	65	9.....	10	60
23.....	12	60	9.....	10	60
23.....	10	55	10.....	10	55
23.....	10	55	10.....	13	78
23.....	12	60	10.....	13	78
24.....	19	95	10.....	12	60
25.....	12	60	11.....	10	70
25.....	12	60	11.....	12	60
25.....	10	40	11.....	12	60
25.....	10	70	12.....	14	74
26.....	12	60	12.....	12	60
26.....	19	98	12.....	12	60
26.....	12	60	12.....	12	60
26.....	12	60	12.....	11	55
26.....	8	40	12.....	10	50
27.....	10	65	12.....	10	50
28.....	12	48	12.....	15	75
28.....	20	98	13.....	10	70
29.....	13	65	13.....	11	50
29.....	12	60	13.....	9	45
29.....	12	60	14.....	14	84
29.....	12	60	14.....	12	60
29.....	12	60	14.....	12	60
29.....	11	55	16.....	14	84
March 2.....	10	50	16.....	13	65
2.....	10	50	16.....	12	64
2.....	12	60	16.....	10	60
3.....	12	60	16.....	12	60
3.....	12	60	16.....	12	60
3.....	12	60	16.....	12	60
3.....	8	40	16.....	12	60
4.....	10	70	16.....	11	55
4.....	12	63	16.....	11	55
4.....	12	60	16.....	10	53
5.....	12	60	16.....	12	62
5.....	12	55	16.....	10	50
5.....	12	55	17.....	12	64
5.....	14	98	17.....	13	61
5.....	10	70	17.....	8	40
5.....	10	70	17.....	10	70
5.....	12	60	17.....	10	70
5.....	12	60	18.....	13	91
5.....	12	60	18.....	10	70
5.....	10	55	18.....	10	70
5.....	10	50	18.....	10	70
5.....	10	50	18.....	12	60
6.....	10	70	18.....	12	60
6.....	10	55	18.....	11	95
6.....	10	55	18.....	11	55
6.....	10	50	18.....	10	50
7.....	14	70	18.....	12	60
7.....	13	65	18.....	11	55
7.....	12	60	18.....	10	51
8.....	10	55	18.....	8	40
8.....	12	84	19.....	13	91
8.....	14	74	19.....	10	70
8.....	12	72	19.....	10	50
8.....	10	70	19.....	10	50
8.....	10	70	19.....	9	45
8.....	10	70	19.....	10	70
8.....	14	70	19.....	10	70
8.....	14	70	19.....	10	70
8.....	12	60	19.....	10	70
8.....	11	55	19.....	10	70
8.....	9	50	19.....	10	70
8.....	10	50	20.....	12	75

PORT OF BUFFALO—Continued.

Statement of importations under paragraphs 393, 396, and 699 of the tariff act of July 24, 1897, at the port of Buffalo, N. Y., from January 1, 1907, to June 1, 1908, etc.—Continued.

PULPWOOD FROM CANADA—Continued.

[Under paragraph 699.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1908.	Cords.		1908.	Cords.	
March 20.....	10	\$70	March 27.....	11	\$58
20.....	12	65	27.....	9	45
20.....	11	66	27.....	8	43
21.....	13	81	27.....	9	36
21.....	12	75	28.....	10	55
21.....	10	70	28.....	13	91
21.....	10	70	28.....	12	78
21.....	10	70	28.....	13	78
21.....	10	70	28.....	10	70
21.....	11	66	28.....	10	70
21.....	11	66	28.....	10	50
21.....	14	83	29.....	10	70
21.....	10	70	29.....	10	70
21.....	10	70	29.....	10	70
21.....	13	68	29.....	10	70
22.....	13	91	29.....	10	70
22.....	13	83	29.....	10	70
22.....	13	78	29.....	10	70
22.....	13	78	29.....	10	70
22.....	12	75	29.....	10	70
22.....	9	63	29.....	14	70
23.....	13	81	29.....	13	65
23.....	12	75	29.....	12	60
23.....	10	70	29.....	12	60
23.....	10	70	29.....	10	60
23.....	10	70	29.....	12	58
23.....	14	66	29.....	9	45
23.....	10	60	29.....	9	45
23.....	12	60	30.....	10	70
24.....	12	84	30.....	10	70
24.....	14	70	30.....	10	70
24.....	13	66	30.....	10	70
24.....	14	66	30.....	13	65
24.....	13	66	30.....	12	60
24.....	13	63	30.....	12	60
24.....	12	60	30.....	11	58
24.....	12	60	30.....	10	55
24.....	11	58	30.....	10	55
24.....	10	47	31.....	12	60
25.....	8	40	31.....	12	60
25.....	13	91	31.....	10	55
25.....	13	81	31.....	10	55
25.....	12	75	31.....	8	40
25.....	14	71	31.....	9	36
25.....	10	70	April 1.....	10	70
25.....	12	66	1.....	12	60
25.....	12	66	1.....	12	60
25.....	12	60	1.....	13	91
25.....	12	60	1.....	10	70
25.....	10	55	1.....	10	70
25.....	10	55	1.....	10	70
25.....	10	70	1.....	10	70
25.....	10	50	1.....	10	70
26.....	10	55	1.....	10	70
26.....	9	75	1.....	10	70
26.....	10	70	1.....	12	60
26.....	10	70	1.....	12	60
26.....	10	70	1.....	12	60
26.....	12	60	1.....	12	60
26.....	10	55	1.....	12	60
26.....	12	60	1.....	10	70
26.....	11	55	2.....	12	60
26.....	10	48	2.....	15	100
26.....	9	48	2.....	12	60
26.....	9	46	2.....	12	60
26.....	9	36	2.....	12	60
26.....	8	32	2.....	9	56
27.....	10	53	3.....	10	70
27.....	14	70	3.....	12	60
27.....	14	70	3.....	12	60
27.....	12	61	3.....	12	60
27.....	12	58	3.....	12	60

PORT OF BUFFALO—Continued.

Statement of importations under paragraphs 393, 396, and 699 of the tariff act of July 24, 1897, at the port of Buffalo, N. Y., from January 1, 1907, to June, 1, 1908, etc.—Continued.

PULPWOOD FROM CANADA—Continued.

[Under paragraph 699.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1908.	Cords.		1908.	Cords.	
April 4.....	10	\$70	April 10.....	10	\$55
4.....	10	70	10.....	10	55
4.....	10	70	10.....	16	100
4.....	12	60	10.....	13	86
4.....	12	60	11.....	10	70
4.....	12	60	11.....	10	70
4.....	10	50	11.....	10	70
4.....	10	50	11.....	10	70
5.....	12	60	11.....	10	70
5.....	10	50	11.....	10	70
5.....	8	43	11.....	10	70
5.....	7	35	11.....	10	70
5.....	14	98	11.....	10	70
5.....	10	70	11.....	12	60
5.....	10	70	11.....	9	45
5.....	10	70	11.....	12	60
5.....	10	70	11.....	12	60
5.....	10	70	11.....	10	56
5.....	10	70	11.....	12	60
5.....	10	70	11.....	12	60
5.....	10	70	11.....	10	50
5.....	10	70	11.....	10	48
5.....	10	70	11.....	10	70
5.....	10	60	11.....	10	70
5.....	10	60	11.....	10	70
5.....	12	60	11.....	10	70
5.....	10	55	12.....	13	65
5.....	10	55	12.....	9	45
5.....	10	55	12.....	15	98
5.....	10	55	12.....	10	70
5.....	10	55	12.....	12	60
5.....	10	55	12.....	10	55
5.....	10	55	12.....	10	55
5.....	10	55	12.....	10	55
5.....	10	70	12.....	10	55
6.....	9	45	13.....	13	65
6.....	10	70	13.....	12	60
6.....	12	60	13.....	12	60
7.....	10	70	13.....	9	45
7.....	10	65	13.....	9	45
7.....	10	65	13.....	12	84
7.....	10	55	13.....	13	78
7.....	10	50	13.....	10	70
7.....	10	55	13.....	10	70
7.....	12	79	13.....	10	65
7.....	12	60	13.....	10	60
7.....	11	46	13.....	10	88
7.....	9	45	13.....	12	60
7.....	8	40	13.....	10	52
7.....	10	63	13.....	10	60
7.....	12	60	13.....	10	50
7.....	10	60	13.....	10	50
7.....	10	55	13.....	10	50
7.....	10	55	13.....	10	50
7.....	10	55	13.....	9	32
8.....	10	70	14.....	10	70
8.....	10	60	14.....	10	70
8.....	10	60	14.....	10	70
8.....	10	55	14.....	10	70
8.....	10	55	14.....	10	70
8.....	10	70	14.....	10	70
8.....	10	70	14.....	10	70
8.....	12	60	14.....	10	70
8.....	11	58	14.....	10	55
8.....	9	45	14.....	10	55
9.....	10	65	14.....	10	55
9.....	9	45	14.....	10	55
10.....	12	79	14.....	13	65
10.....	10	70	14.....	12	60
10.....	12	60	14.....	9	40
10.....	12	60	15.....	10	75
10.....	9	45	15.....	10	70
10.....	10	55	15.....	12	60

PORT OF BUFFALO—Continued.

Statement of importations under paragraphs 393, 396, and 699 of the tariff act of July 24, 1897, at the port of Buffalo, N. Y., from January 1, 1907, to June 1, 1908, etc.—Continued.

PULP WOOD FROM CANADA—Continued.

[Under paragraph 699.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1908.	Cords.		1908.	Cords.	
April 15.....	12	\$60	April 20.....	10	\$60
15.....	12	60	20.....	12	60
15.....	13	65	20.....	10	60
15.....	15	98	21.....	12	60
15.....	10	70	21.....	9	45
15.....	10	70	21.....	10	70
15.....	10	70	21.....	10	70
15.....	10	70	21.....	10	70
15.....	10	70	21.....	10	70
15.....	10	70	21.....	10	60
15.....	10	70	21.....	10	60
15.....	10	70	21.....	12	60
15.....	10	70	21.....	10	70
15.....	10	70	22.....	10	70
15.....	10	70	22.....	10	70
15.....	10	70	22.....	10	70
15.....	10	70	22.....	10	60
15.....	10	55	22.....	12	60
15.....	10	55	22.....	12	60
16.....	13	78	22.....	10	60
16.....	13	78	22.....	12	60
16.....	12	78	22.....	12	75
16.....	10	70	22.....	13	73
16.....	10	70	22.....	10	70
16.....	10	70	22.....	10	70
16.....	10	70	22.....	10	70
16.....	12	60	22.....	10	70
16.....	10	60	22.....	10	70
16.....	10	60	22.....	12	60
16.....	10	55	22.....	12	60
16.....	10	55	22.....	10	55
16.....	10	55	22.....	10	55
16.....	10	55	22.....	9	45
16.....	10	55	22.....	10	70
16.....	10	55	23.....	15	90
16.....	10	70	23.....	10	70
16.....	10	50	23.....	19	70
16.....	10	50	23.....	10	70
16.....	10	70	23.....	10	70
16.....	10	60	23.....	10	70
17.....	10	70	23.....	10	55
17.....	10	50	23.....	10	70
17.....	15	98	23.....	10	70
18.....	12	75	23.....	10	70
18.....	12	84	23.....	10	70
18.....	10	70	23.....	10	70
18.....	10	70	23.....	10	70
19.....	12	84	23.....	10	70
19.....	10	70	23.....	10	50
19.....	10	70	23.....	10	70
19.....	10	70	23.....	10	70
19.....	10	70	24.....	12	84
19.....	10	70	24.....	10	70
19.....	10	70	24.....	10	60
19.....	10	70	24.....	10	70
19.....	12	60	24.....	12	60
19.....	10	60	25.....	10	70
19.....	12	60	25.....	10	70
19.....	12	60	25.....	9	45
19.....	12	60	25.....	9	45
19.....	12	60	25.....	10	70
19.....	10	60	26.....	12	84
19.....	10	50	26.....	12	78
19.....	14	88	26.....	10	70
20.....	15	90	26.....	10	70
20.....	10	70	26.....	10	70
20.....	10	70	26.....	10	70
20.....	10	70	26.....	10	70
20.....	10	70	26.....	12	60
20.....	10	60	26.....	12	60
20.....	10	60	26.....	12	60

PORT OF BUFFALO—Continued.

Statement of importations under paragraphs 393, 396, and 699 of the tariff act of July 24, 1897, at the port of Buffalo, N. Y., from January 1, 1907, to June 1, 1908, etc.—Continued.

PULP WOOD FROM CANADA—Continued.

[Under paragraph 699.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1908.	Cords.		1908.	Cords.	
April 26.....	12	\$60	May 2.....	10	\$55
26.....	12	60	2.....	10	55
26.....	12	60	2.....	10	50
26.....	10	60	2.....	12	64
26.....	12	60	3.....	13	64
26.....	12	60	3.....	11	55
26.....	9	45	3.....	10	50
27.....	10	70	3.....	10	50
27.....	10	60	3.....	10	70
27.....	10	60	4.....	12	75
27.....	12	60	4.....	12	75
27.....	10	60	4.....	12	60
27.....	13	81	4.....	10	55
27.....	12	75	6.....	20	90
28.....	9	45	6.....	10	70
28.....	10	70	6.....	12	66
28.....	10	70	6.....	12	60
28.....	10	60	6.....	12	60
28.....	10	38	6.....	12	60
29.....	10	60	6.....	12	60
29.....	10	55	6.....	10	55
29.....	10	40	8.....	12	60
29.....	10	40	9.....	11	66
29.....	13	81	9.....	10	70
29.....	11	66	9.....	12	60
29.....	12	64	9.....	12	60
29.....	11	55	10.....	14	98
29.....	9	45	10.....	12	69
29.....	12	60	10.....	12	60
29.....	12	60	11.....	10	74
29.....	12	60	11.....	12	60
29.....	12	60	12.....	12	60
29.....	10	60	12.....	13	51
29.....	12	60	12.....	9	45
29.....	10	55	12.....	10	70
29.....	10	55	12.....	10	70
29.....	10	50	12.....	12	60
30.....	10	70	12.....	12	60
30.....	12	60	15.....	12	60
30.....	10	60	16.....	10	70
30.....	12	60	16.....	12	60
30.....	12	60	17.....	10	70
30.....	10	55	18.....	12	60
May 1.....	12	66	18.....	12	60
1.....	12	66	18.....	12	60
1.....	10	60	21.....	15	83
1.....	12	60	21.....	10	55
1.....	10	60	22.....	13	75
1.....	10	60	22.....	14	63
1.....	10	60	24.....	13	91
1.....	9	45	27.....	14	68
2.....	11	80	27.....	12	54
2.....	10	60			
2.....	12	60			
2.....	12	60			
			Total.....	10,660	55,123

PORT OF OSWEGO, N. Y.

No importations during the period January 1, 1907, to June 1, 1908, of wood (pulp under paragraph 393), filter masse or filter stock (under paragraph 395), or printing paper (under paragraph 396), of the tariff act of 1897.

Statement of pulp woods imported into the district of Oswego, N. Y., under paragraph 699 of the tariff act of July 24, 1897, during the period from January 1, 1907, to June 1, 1908.

Date of arrival.	Quantity.	Whence imported.	Value.
1907.			
May 28.....	<i>Cords.</i> 1,139	Province of Quebec, Canada...	\$5,695.00
June 4.....	284	do.....	1,420.00
June 24.....	1,153	do.....	6,755.00
July 1.....	284	do.....	1,420.00
July 8.....	1,138	do.....	5,647.00
July 13.....	926	do.....	4,724.50
July 22.....	1,498	do.....	7,490.00
August 1.....	960	do.....	4,900.00
August 13.....	1,714	do.....	8,570.00
August 29.....	1,757	do.....	8,785.00
September 7.....	1,229	do.....	6,145.00
September 14.....	613	do.....	3,997.50
September 21.....	1,199	do.....	5,995.00
October 3.....	1,375	do.....	6,875.00
October 18.....	1,792	do.....	10,659.50
October 31.....	1,742	do.....	8,965.00
	18,803		97,886.50

Statement of pulp wood imported into district of Cape Vincent, N. Y., from January 1, 1907, to June 1, 1908, from Quebec, Canada.

Date imported.	Quantity.	Value.	
1907.			
June 5.....	<i>Cords.</i> 500	\$3,500.00	Free under paragraph 699.
June 27.....	700	3,675.00	Do.
July 6.....	600	3,150.00	Do.
July 12.....	700	3,675.00	Do.
July 23.....	700	3,675.00	Do.
August 3.....	1,200	7,675.00	Do.
August 21.....	700	3,675.00	Do.
August 27.....	700	3,675.00	Do.
September 9.....	700	3,675.00	Do.
September 19.....	700	3,675.00	Do.
September 26.....	700	3,675.00	Do.
October 9.....	700	3,675.00	Do.
October 15.....	500	4,125.00	Do.
October 25.....	700	3,675.00	Do.
November 5.....	700	3,675.00	Do.
December 6.....	442	3,536.00	Do.
Total.....	10,942	62,411.00	

None of the following articles were imported into this district during the period stated: Any kind of wood pulp; filter masse or filter stock; no class of printing paper.

PORT OF OGDENSBURG, N. Y.

Tabulated statement showing the date of arrival, quantity, appraised value, country of origin, and duties collected in the district of Oswegatchie, N. Y., on each importation of the various kinds of wood pulp specified in paragraph 393, from January 1, 1907, to June 1, 1908.

MECHANICALLY GROUND WOOD PULP.

Date.	Quantity.	Appraised value.	Country of origin.	Duty.	Additional duty.
1907.	<i>Pounds.</i>				
January 2.....	62,361	\$608.00	Canada.....	\$51.97	\$2.34
Do.....	62,361	586.00	do.....	51.97	2.34
Do.....	66,005	709.00	do.....	55.07	.....
January 14.....	62,361	586.00	do.....	51.97	2.34
Do.....	165,258	1,611.00	do.....	137.72	6.20
January 25.....	31,181	296.00	do.....	25.98	1.17
Do.....	31,181	296.00	do.....	25.98	1.17
Do.....	155,904	1,520.00	do.....	129.92	5.85
February 1.....	131,185	1,181.00	do.....	109.32	4.92
February 5.....	157,786	1,420.00	do.....	131.49	5.92
February 16.....	156,173	1,406.00	do.....	130.14	5.86
February 19.....	62,684	589.00	do.....	52.24	2.35
February 25.....	44,267	406.00	do.....	36.89	.....
March 2.....	31,718	301.00	do.....	26.43	1.19
March 15.....	143,679	1,293.00	do.....	119.73	5.39
March 26.....	155,904	1,403.00	do.....	129.92	5.85
April 1.....	59,244	557.00	do.....	49.37	2.22
April 8.....	62,362	586.00	do.....	51.97	2.34
April 9.....	31,181	296.00	do.....	25.98	1.17
April 10.....	156,905	1,403.00	do.....	129.92	5.85
April 27.....	155,904	1,403.00	do.....	129.92	5.85
April 30.....	71,716	932.00	do.....	59.76	2.69
May 4.....	155,905	1,403.00	do.....	129.92	5.85
June 21.....	158,054	1,422.00	do.....	131.71	5.93
June 26.....	62,577	704.00	do.....	52.15	2.15
July 3.....	160,857	1,448.00	do.....	134.05	6.03
July 5.....	31,450	354.00	do.....	26.21	1.18
July 8.....	63,437	698.00	do.....	52.86	2.38
July 12.....	62,362	561.00	do.....	51.97	2.34
July 15.....	85,747	772.00	do.....	71.46	3.22
July 16.....	93,542	842.00	do.....	77.95	3.51
July 22.....	93,542	889.00	do.....	77.95	3.51
July 29.....	93,542	889.00	do.....	77.95	3.51
July 31.....	155,904	1,403.00	do.....	129.92	5.85
August 1.....	46,771	608.00	do.....	38.98	1.75
August 5.....	90,424	859.00	do.....	75.35	3.39
Do.....	148,111	1,333.00	do.....	123.43	5.55
August 12.....	56,890	626.00	do.....	47.42	2.13
August 21.....	67,941	487.00	do.....	56.62	.....
August 24.....	61,012	671.00	do.....	50.84	2.29
August 28.....	20,674	142.00	do.....	17.23	.....
August 30.....	171,494	2,229.00	do.....	142.91	6.4
Do.....	182,690	1,644.00	do.....	152.24	6.85
September 3.....	31,181	296.00	do.....	25.98	1.17
Do.....	124,723	1,213.00	do.....	103.94	4.68
September 20.....	124,723	1,123.00	do.....	103.94	4.68
Do.....	62,362	639.00	do.....	51.97	2.34
October 3.....	71,716	735.00	do.....	59.76	2.69
Do.....	65,480	671.00	do.....	54.57	2.46
October 4.....	24,199	194.00	do.....	20.17	.....
October 10.....	35,858	394.00	do.....	29.88	1.24
October 29.....	14,167	113.00	do.....	11.81	.....
October 30.....	124,938	1,124.00	do.....	104.12	4.69
November 2.....	63,114	710.00	do.....	52.60	2.37
Do.....	154,345	1,389.00	do.....	128.62	5.79
November 4.....	85,747	879.00	do.....	71.46	3.22
November 5.....	59,243	652.00	do.....	49.37	2.22
November 16.....	62,362	561.00	do.....	51.97	2.34
November 18.....	93,542	842.00	do.....	77.95	3.51
November 19.....	91,983	828.00	do.....	76.65	3.45
November 20.....	91,929	942.00	do.....	76.61	3.45
Do.....	30,643	345.00	do.....	25.54	1.15
Do.....	45,964	414.00	do.....	38.30	1.72
November 22.....	20,390	138.00	do.....	16.99	2.55
November 23.....	91,930	942.00	do.....	76.61	3.45
November 26.....	52,093	573.00	do.....	43.41	1.95
December 5.....	87,333	895.00	do.....	72.78	3.28
December 12.....	23,386	257.00	do.....	19.49	.....
December 17.....	62,362	686.00	do.....	51.97	2.34
December 21.....	62,362	639.00	do.....	51.97	2.34
December 27.....	179,290	1,614.00	do.....	149.41	6.72

PORT OF OGDENSBURG, N. Y.—Continued.

Tabulated statement showing the date of arrival, quantity, appraised value, country of origin, and duties collected in the district of Oswego, N. Y., on each importation of the various kinds of wood pulp specified in paragraph 393, from January 1, 1907, to June 1, 1908—Continued.

MECHANICALLY GROUND WOOD PULP—Continued.

Date.	Quantity.	Appraised value.	Country of origin.	Duty.	Additional duty.
1908.	<i>Pounds.</i>				
February 1.....	100,464	\$1,030.00	Canada.....	\$83.72	\$2.77
February 6.....	162,288	1,663.00	do.....	135.24	6.09
February 13.....	165,379	1,695.00	do.....	137.82	6.20
February 14.....	77,280	772.00	do.....	64.40	2.80
February 17.....	49,459	544.00	do.....	41.22	1.85
February 21.....	185,379	1,695.00	do.....	137.82	6.20
March 16.....	111,903	839.00	do.....	83.25	.....
Do.....	117,848	884.00	do.....	86.21	.....
March 17.....	171,279	1,756.00	do.....	142.73	6.42
March 19.....	54,086	595.00	do.....	45.08	2.03
April 20.....	69,243	762.00	do.....	57.70	2.60
May 1.....	179,230	1,838.00	do.....	149.41	6.72
May 20.....	61,824	680.00	do.....	51.52	2.22
May 29.....	171,494	1,758.00	do.....	142.00	6.43
Total.....	7,813,846	75,714.00		6,510.74	277.07

UNBLEACHED CHEMICAL WOOD PULP.

1907.	<i>Pounds.</i>				
January 5.....	27,076	\$406.00	Canada.....	\$45.13	\$4.83
Do.....	18,056	271.00	do.....	30.09	3.22
January 8.....	18,101	272.00	do.....	30.17	3.23
January 29.....	18,083	271.00	do.....	30.14	3.23
Do.....	18,092	271.00	do.....	30.15	3.23
February 2.....	18,054	271.00	do.....	30.09	3.23
Do.....	18,031	270.00	do.....	30.05	3.22
February 8.....	18,020	270.00	do.....	30.03	3.22
February 19.....	18,036	271.00	do.....	30.06	3.22
March 11.....	18,069	271.00	do.....	30.12	3.23
March 13.....	27,096	406.00	do.....	45.16	4.84
Do.....	27,083	406.00	do.....	45.14	4.84
Do.....	18,085	271.00	do.....	30.14	3.23
Do.....	18,013	270.00	do.....	30.02	3.22
April 19.....	15,246	229.00	do.....	25.41	2.72
May 2.....	15,257	229.00	do.....	25.43	2.72
Do.....	14,840	223.00	do.....	24.73	2.65
Do.....	15,232	228.00	do.....	25.39	2.72
May 3.....	15,260	229.00	do.....	25.43	2.73
May 21.....	15,222	228.00	do.....	25.37	2.72
May 22.....	15,217	228.00	do.....	25.36	2.72
May 24.....	15,266	229.00	do.....	25.44	2.73
May 28.....	15,291	229.00	do.....	25.49	2.73
May 29.....	15,255	229.00	do.....	25.43	2.72
May 31.....	19,019	285.00	do.....	31.70	3.40
June 4.....	19,009	285.00	do.....	31.68	3.39
June 8.....	22,839	343.00	do.....	38.07	4.08
July 27.....	14,840	223.00	do.....	24.73	2.65
July 30.....	18,529	278.00	do.....	30.88	3.31
August 6.....	14,859	223.00	do.....	24.77	2.65
August 21.....	27,054	436.00	do.....	45.09	4.83
August 22.....	18,081	271.00	do.....	30.14	3.23
Do.....	18,063	271.00	do.....	30.11	3.23
September 5.....	18,065	271.00	do.....	30.11	3.23
Do.....	22,592	339.00	do.....	37.65	4.03
September 7.....	22,237	334.00	do.....	37.06	3.97
September 21.....	16,245	246.00	do.....	27.08	2.90
September 28.....	18,067	271.00	do.....	30.15	3.23
October 3.....	18,063	271.00	do.....	30.14	3.23
October 8.....	23,980	360.00	do.....	39.97	4.28
Do.....	19,478	292.00	do.....	32.44	3.45
October 18.....	27,056	406.00	do.....	45.09	4.83
October 29.....	18,018	270.00	do.....	30.03	3.22
Do.....	22,500	338.00	do.....	37.50	4.02
November 4.....	18,175	273.00	do.....	30.29	3.25
November 8.....	18,000	270.00	do.....	30.00	3.21
November 11.....	17,497	525.00	do.....	29.16	.....
November 21.....	27,000	406.00	do.....	45.00	4.82
November 23.....	18,247	274.00	do.....	30.41	3.26
December 16.....	18,000	270.00	do.....	30.00	3.21

PORT OF OGDENSBURG, N. Y.—Continued.

Tabulated statement showing the date of arrival, quantity, appraised value, country of origin, and duties collected in the district of Oswegatchie, N. Y., on each importation of the various kinds of wood pulp specified in paragraph 393, from January 1, 1907, to June 1, 1908—Continued.

UNBLEACHED CHEMICAL WOOD PULP—Continued.

Date.	Quantity.	Appraised value.	Country of origin.	Duty.	Additional duty.
1907.	<i>Pounds.</i>				
December 21.....	28,068	\$391.00	Canada.....	\$43.44	\$4.68
December 27.....	22,826	342.00	do.....	38.04	4.08
Do.....	22,858	343.00	do.....	38.10	4.08
1908.					
January 4.....	15,200	228.00	do.....	25.33	2.71
January 13.....	22,800	342.00	do.....	38.00	4.07
January 20.....	22,800	342.00	do.....	38.00	4.07
Do.....	15,200	228.00	do.....	25.33	2.71
Do.....	22,800	342.00	do.....	38.00	4.07
February 11.....	15,200	228.00	do.....	25.33	2.71
February 13.....	18,701	281.00	do.....	31.17	2.74
February 17.....	15,200	228.00	do.....	25.33	2.71
Do.....	15,200	228.00	do.....	25.33	2.71
Do.....	15,200	228.00	do.....	25.33	2.71
Do.....	19,000	285.00	do.....	31.67	3.30
February 24.....	15,200	228.00	do.....	25.33	2.71
Total.....	1,231,785	18,572.00		2,052.95	218.39

No importations during the period from January 1, 1907, to June 1, 1908, of filter masse or filter stock under paragraph 395 and bleached chemical wood pulp under paragraph 393 of the tariff act of 1897.

Tabulated statement showing the date of arrival, quantity, appraised value, country of origin, and duties collected, in the district of Oswegatchie, N. Y., on each importation of the various classes of printing paper provided for under paragraph 396, in the district of Oswegatchie, N. Y., from January 1, 1907, to June 1, 1908.

Date.	Quantity.	Appraised value.	Country of origin.	Duty.	Additional duty.
1907.	<i>Pounds.</i>				
January 22.....	31,944	\$575.00	Canada.....	\$95.83	.....
February 5.....	40,794	725.00	do.....	122.38	.....
February 16.....	31,726	517.00	do.....	95.18	.....
February 18.....	40,029	597.00	do.....	120.09	.....
February 19.....	88,400	1,319.00	do.....	265.20	.....
February 20.....	33,211	565.00	do.....	99.63	.....
February 21.....	90,581	1,352.00	do.....	271.74	.....
February 28.....	33,124	579.00	do.....	99.37	.....
March 6.....	93,137	1,537.00	do.....	279.41	.....
March 7.....	139,172	2,296.00	do.....	417.52	.....
March 9.....	26,915	484.00	do.....	80.75	.....
April 13.....	30,244	560.00	do.....	90.73	.....
Do.....	29,705	550.00	do.....	89.12	.....
April 15.....	29,148	539.00	do.....	87.44	.....
Do.....	29,391	544.00	do.....	88.17	.....
April 16.....	29,810	549.00	do.....	89.43	.....
April 18.....	43,850	820.00	do.....	131.55	.....
Do.....	47,539	889.00	do.....	142.62	.....
Do.....	41,753	781.00	do.....	125.26	.....
Do.....	51,814	969.00	do.....	155.44	.....
Do.....	47,502	888.00	do.....	142.51	.....
Do.....	29,691	549.00	do.....	89.07	.....
April 20.....	29,300	539.00	do.....	87.90	.....
Do.....	30,461	564.00	do.....	91.38	.....
Do.....	29,249	541.00	do.....	87.75	.....
April 22.....	31,378	577.00	do.....	94.13	.....
Do.....	38,158	702.00	do.....	114.47	.....
April 23.....	33,277	616.00	do.....	99.83	.....
Do.....	31,022	571.00	do.....	93.07	.....
April 27.....	38,170	763.00	do.....	114.51	.....
Do.....	33,563	518.00	do.....	100.66	.....

PORT OF OGDENSBURG, N. Y.—Continued

Tabulated statement showing the date of arrival, quantity, appraised value, country of origin, and duties collected, in the district of Oswegatchie, N. Y., on each importation of the various classes of printing paper provided for under paragraph 396, in the district of Oswegatchie, N. Y., from January 1, 1907, to June 1, 1908—Continued.

Date.	Quantity.	Appraised value.	Country of origin.	Duty.	Additional duty.
1907.	Pounds.				
April 27.....	30,535	\$555.00	Canada.....	\$91.61	.....
Do.....	31,419	581.00	do.....	94.21	.....
April 30.....	30,545	555.00	do.....	91.64	.....
Do.....	33,980	625.00	do.....	101.88	.....
Do.....	46,667	863.00	do.....	140.00	.....
May 1.....	66,536	1,224.00	do.....	199.61	.....
May 3.....	41,568	852.00	do.....	166.27	.....
Do.....	37,332	691.00	do.....	112.00	.....
May 6.....	41,999	770.00	do.....	125.61	.....
May 8.....	37,220	678.00	do.....	111.66	.....
May 9.....	35,230	652.00	do.....	105.69	.....
May 11.....	34,520	639.00	do.....	108.58	.....
May 13.....	32,258	597.00	do.....	96.77	.....
May 15.....	37,432	692.00	do.....	112.30	.....
Do.....	32,546	602.00	do.....	97.64	.....
May 16.....	35,549	658.00	do.....	106.65	.....
Do.....	34,726	642.00	do.....	104.18	.....
May 20.....	34,724	642.00	do.....	104.17	.....
Do.....	32,165	595.00	do.....	96.47	.....
Do.....	28,120	520.00	do.....	84.36	.....
May 22.....	34,477	638.00	do.....	103.43	.....
Do.....	41,269	763.00	do.....	123.77	.....
Do.....	41,047	739.00	do.....	123.14	.....
Do.....	33,842	626.00	do.....	101.53	.....
Do.....	38,577	714.00	do.....	115.73	.....
May 25.....	29,434	618.00	do.....	142.84	.....
May 27.....	39,636	733.00	do.....	118.91	.....
Do.....	38,243	708.00	do.....	114.73	.....
Do.....	36,772	680.00	do.....	110.32	.....
May 30.....	37,505	694.00	do.....	112.52	.....
June 1.....	37,135	687.00	do.....	111.41	.....
Do.....	38,204	688.00	do.....	114.61	.....
June 4.....	39,244	706.00	do.....	117.73	.....
June 6.....	44,586	825.00	do.....	132.76	.....
June 7.....	44,649	826.00	do.....	133.95	.....
June 8.....	36,903	677.00	do.....	109.81	.....
June 10.....	31,568	584.00	do.....	94.70	.....
June 11.....	46,340	1,019.00	do.....	185.36	.....
June 15.....	35,115	650.00	do.....	105.35	.....
Do.....	40,351	746.00	do.....	121.05	.....
June 19.....	45,046	833.00	do.....	135.14	.....
June 27.....	42,475	637.00	do.....	159.25	.....
July 4.....	37,042	685.00	do.....	111.13	.....
July 6.....	77,923	1,442.00	do.....	223.77	.....
July 8.....	1,845	48.00	do.....	9.25	.....
July 13.....	44,692	706.00	do.....	134.08	.....
July 16.....	39,089	598.00	do.....	117.21	.....
Do.....	80,390	1,487.00	do.....	241.17	.....
July 30.....	31,200	602.00	do.....	93.60	.....
August 10.....	3,740	60.00	do.....	11.22	.....
August 13.....	37,433	655.00	do.....	112.30	.....
August 24.....	36,707	679.00	do.....	110.12	.....
September 7.....	43,615	807.00	do.....	130.85	.....
September 13.....	34,836	644.00	do.....	104.51	.....
September 14.....	31,029	574.00	do.....	93.09	.....
Do.....	37,640	696.00	do.....	112.92	.....
September 18.....	37,581	695.00	do.....	112.74	.....
September 21.....	41,809	753.00	do.....	125.43	.....
September 28.....	40,599	751.00	do.....	121.80	.....
Do.....	39,163	725.00	do.....	117.49	.....
Do.....	36,763	721.00	do.....	110.29	.....
October 2.....	44,164	883.00	do.....	132.49	.....
Do.....	39,425	729.00	do.....	118.28	.....
Do.....	2,000	37.00	do.....	6.00	.....
October 7.....	41,229	763.00	do.....	123.69	.....
October 16.....	35,833	663.00	do.....	107.50	.....
October 18.....	43,844	811.00	do.....	131.53	.....
October 22.....	42,289	782.00	do.....	126.87	.....
Do.....	41,876	775.00	do.....	125.63	.....
Do.....	38,596	714.00	do.....	115.79	.....
October 24.....	36,084	668.00	do.....	108.25	.....
Do.....	41,329	765.00	do.....	123.99	.....
October 29.....	40,759	754.00	do.....	122.28	.....
Do.....	43,941	813.00	do.....	131.82	.....

PORT OF OGDENSBURG, N. Y.—Continued.

Tabulated statement showing the date of arrival, quantity, appraised value, country of origin, and duties collected, in the district of Oswegatchie, N. Y., on each importation of the various classes of printing paper provided for under paragraph 396, in the district of Oswegatchie, N. Y., from January 1, 1907, to June 1, 1908—Continued.

Date.	Quantity.	Appraised value.	Country of origin.	Duty.	Additional duty.
1907.	<i>Pounds.</i>				
November 4.....	35,530	\$657.00	Canada.....	\$106.59	.....
November 6.....	35,100	649.00	do.....	105.30	.....
Do.....	38,492	712.00	do.....	115.48	.....
Do.....	43,551	806.00	do.....	130.65	.....
November 7.....	46,990	869.00	do.....	140.97	.....
November 9.....	42,301	783.00	do.....	126.90	.....
November 11.....	41,299	764.00	do.....	123.90	.....
November 13.....	37,844	700.00	do.....	113.53	.....
November 14.....	68,298	1,264.00	do.....	204.89	.....
Do.....	39,107	723.00	do.....	117.32	.....
November 15.....	40,604	751.00	do.....	121.81	.....
Do.....	41,540	768.00	do.....	124.62	.....
November 19.....	39,561	732.00	do.....	118.68	.....
Do.....	39,355	728.00	do.....	118.07	.....
November 22.....	36,258	671.00	do.....	108.77	.....
November 29.....	41,771	773.00	do.....	125.31	.....
November 30.....	38,256	707.00	do.....	114.77	.....
Do.....	35,751	661.00	do.....	107.25	.....
December 6.....	51,636	955.00	do.....	154.91	.....
December 9.....	37,075	686.00	do.....	111.23	.....
December 12.....	43,138	798.00	do.....	129.41	.....
Do.....	43,397	803.00	do.....	130.19	.....
Do.....	37,073	686.00	do.....	11.22	.....
December 13.....	40,928	757.00	do.....	122.78	.....
December 18.....	37,502	694.00	do.....	112.51	.....
Do.....	43,015	796.00	do.....	129.05	.....
Do.....	39,483	730.00	do.....	118.45	.....
December 19.....	34,008	646.00	do.....	102.02	.....
Do.....	35,827	681.00	do.....	107.48	.....
December 20.....	56,753	1,078.00	do.....	170.26	.....
Do.....	35,878	682.00	do.....	107.63	.....
December 21.....	43,730	831.00	do.....	131.19	.....
December 23.....	42,352	805.00	do.....	127.06	.....
Do.....	42,080	800.00	do.....	126.24	.....
December 24.....	37,531	713.00	do.....	112.59	.....
Do.....	37,829	719.00	do.....	113.49	.....
December 28.....	45,512	865.00	do.....	136.54	.....
Do.....	39,608	753.00	do.....	118.82	.....
December 31.....	36,589	695.00	do.....	109.77	.....
1908.					
January 1.....	40,864	776.00	do.....	122.59	.....
January 2.....	40,138	763.00	do.....	120.40	.....
January 4.....	40,310	766.00	do.....	120.93	.....
Do.....	44,237	841.00	do.....	132.71	.....
January 6.....	40,778	775.00	do.....	122.33	.....
January 8.....	37,107	705.00	do.....	111.32	.....
Do.....	41,341	785.00	do.....	124.02	.....
January 9.....	38,287	689.00	do.....	108.86	.....
Do.....	40,241	765.00	do.....	120.72	.....
Do.....	40,590	771.00	do.....	121.77	.....
January 10.....	49,848	947.00	do.....	149.54	.....
January 11.....	37,258	708.00	do.....	111.77	.....
January 13.....	37,210	707.00	do.....	111.63	.....
January 14.....	44,844	852.00	do.....	134.53	.....
January 15.....	39,508	751.00	do.....	118.52	.....
January 17.....	46,745	888.00	do.....	140.24	.....
January 18.....	33,710	640.00	do.....	101.13	.....
January 20.....	43,156	820.00	do.....	129.47	.....
January 21.....	41,206	783.00	do.....	123.62	.....
Do.....	36,278	689.00	do.....	108.83	.....
January 22.....	40,617	772.00	do.....	121.85	.....
January 23.....	38,753	736.00	do.....	116.26	.....
January 25.....	44,357	843.00	do.....	133.07	.....
January 27.....	36,940	702.00	do.....	110.82	.....
January 30.....	37,694	716.00	do.....	113.08	.....
January 31.....	41,819	795.00	do.....	125.46	.....
February 3.....	42,810	813.00	do.....	128.43	.....
February 4.....	35,422	673.00	do.....	106.27	.....
February 6.....	37,585	714.00	do.....	112.76	.....
Do.....	43,801	832.00	do.....	131.40	.....
February 8.....	40,624	772.00	do.....	121.87	.....
Do.....	41,203	783.00	do.....	123.61	.....
Do.....	39,442	749.00	do.....	118.33	.....
February 11.....	44,544	846.00	do.....	133.63	.....

PORT OF OGDENSBURG, N. Y.—Continued.

Tabulated statement showing the date of arrival, quantity, appraised value, country of origin, and duties collected, in the district of Oswegatchie, N. Y., on each importation of the various classes of printing paper provided for under paragraph 396, in the district of Oswegatchie, N. Y., from January 1, 1907, to June 1, 1908.—Continued.

Date.	Quantity.	Appraised value.	Country of origin.	Duty.	Additional duty.
1908.	<i>Pounds.</i>				
February 12.....	39,851	\$757.00	Canada.....	\$119.58	.....
Do.....	38,560	733.00	.....do.....	115.68	.....
February 15.....	39,037	742.00	.....do.....	117.11	.....
Do.....	45,068	856.00	.....do.....	135.20	.....
Do.....	43,137	820.00	.....do.....	129.41	.....
Do.....	43,273	822.00	.....do.....	129.82	.....
February 20.....	35,449	674.00	.....do.....	106.35	.....
February 21.....	44,197	840.00	.....do.....	132.59	.....
Do.....	39,209	745.00	.....do.....	117.63	.....
February 25.....	36,889	701.00	.....do.....	110.67	.....
Do.....	41,433	787.00	.....do.....	124.30	.....
Do.....	42,150	801.00	.....do.....	126.45	.....
February 29.....	44,406	844.00	.....do.....	132.22	.....
Do.....	45,340	861.00	.....do.....	136.02	.....
March 2.....	38,185	726.00	.....do.....	114.56	.....
Do.....	40,345	767.00	.....do.....	121.04	.....
March 4.....	40,551	770.00	.....do.....	121.65	.....
March 7.....	80,361	1,527.00	.....do.....	241.08	.....
Do.....	43,042	818.00	.....do.....	129.13	.....
March 9.....	45,476	864.00	.....do.....	136.43	.....
Do.....	34,848	682.00	.....do.....	104.54	.....
March 11.....	41,394	796.00	.....do.....	124.18	.....
Do.....	40,137	763.00	.....do.....	120.41	.....
Do.....	42,679	802.00	.....do.....	128.04	.....
March 12.....	35,320	671.00	.....do.....	105.96	.....
Do.....	42,916	815.00	.....do.....	128.75	.....
Do.....	67,911	1,290.00	.....do.....	203.73	.....
March 13.....	41,338	785.00	.....do.....	124.01	.....
Do.....	41,788	794.00	.....do.....	125.36	.....
Do.....	43,020	817.00	.....do.....	129.06	.....
March 16.....	33,772	642.00	.....do.....	101.32	.....
March 18.....	41,721	793.00	.....do.....	125.16	.....
March 20.....	41,987	798.00	.....do.....	125.96	.....
Do.....	41,609	791.00	.....do.....	124.83	.....
March 23.....	40,963	778.00	.....do.....	122.89	.....
Do.....	75,053	1,426.00	.....do.....	225.16	.....
Do.....	42,346	795.00	.....do.....	127.04	.....
Do.....	43,145	820.00	.....do.....	129.44	.....
Do.....	41,062	780.00	.....do.....	123.19	.....
March 24.....	39,166	744.00	.....do.....	117.50	.....
March 26.....	41,001	779.00	.....do.....	123.00	.....
March 27.....	40,107	762.00	.....do.....	120.32	.....
March 28.....	45,767	870.00	.....do.....	137.30	.....
Do.....	39,199	745.00	.....do.....	117.60	.....
April 1.....	42,865	814.00	.....do.....	128.60	.....
April 2.....	41,540	789.00	.....do.....	124.62	.....
Do.....	36,503	695.00	.....do.....	109.69	.....
April 3.....	37,263	718.00	.....do.....	111.79	.....
Do.....	43,669	830.00	.....do.....	131.01	.....
April 6.....	43,425	825.00	.....do.....	130.28	.....
April 7.....	41,206	783.00	.....do.....	123.62	.....
Do.....	36,785	699.00	.....do.....	110.36	.....
April 8.....	35,043	666.00	.....do.....	105.13	.....
Do.....	38,909	739.00	.....do.....	116.73	.....
April 9.....	35,094	678.00	.....do.....	107.18	.....
Do.....	36,030	685.00	.....do.....	108.09	.....
Do.....	42,109	800.00	.....do.....	126.33	.....
April 15.....	4,490	84.00	.....do.....	13.47	.....
Do.....	37,323	709.00	.....do.....	111.97	.....
April 16.....	37,764	718.00	.....do.....	113.29	.....
April 17.....	35,504	675.00	.....do.....	106.51	.....
Do.....	38,649	734.00	.....do.....	115.95	.....
Do.....	35,470	674.00	.....do.....	106.41	.....
April 20.....	43,297	823.00	.....do.....	129.89	.....
Do.....	41,295	785.00	.....do.....	123.89	.....
Do.....	35,609	677.00	.....do.....	106.83	.....
Do.....	35,738	679.00	.....do.....	107.21	.....
April 21.....	40,415	768.00	.....do.....	121.25	.....
April 22.....	36,460	723.00	.....do.....	109.38	.....
Do.....	45,674	868.00	.....do.....	137.02	.....
April 23.....	36,750	698.00	.....do.....	110.25	.....
Do.....	38,983	741.00	.....do.....	116.95	.....
Do.....	38,445	730.00	.....do.....	115.34	.....
Do.....	41,540	789.00	.....do.....	124.62	.....
Do.....	41,442	787.00	.....do.....	124.33	.....

PORT OF OGDENSBURG, N. Y.—Continued.

Tabulated statement showing the date of arrival, quantity, appraised value, country of origin, and duties collected, in the district of Oswegatchie, N. Y., on each importation, of the various classes of printing paper provided for under paragraph 396, in the district of Oswegatchie, N. Y., from January 1, 1907, to June 1, 1908—Continued.

Date.	Quantity.	Appraised value.	Country of origin.	Duty.	Additional duty.
1908.	<i>Pounds.</i>				
April 24.....	35,123	\$667.00	Canada.....	\$105.37	
April 25.....	71,447	1,357.00	do.....	214.34	
April 27.....	40,910	777.00	do.....	122.73	
April 30.....	39,080	742.00	do.....	117.15	
May 2.....	46,176	877.00	do.....	138.53	
May 5.....	40,615	772.00	do.....	121.85	
Do.....	36,417	692.00	do.....	109.25	
May 8.....	36,850	700.00	do.....	110.55	
May 11.....	38,699	735.00	do.....	116.10	
Do.....	116,919	2,221.00	do.....	350.76	
May 13.....	60,199	1,141.00	do.....	180.60	
Do.....	37,727	717.00	do.....	113.18	
Do.....	36,615	696.00	do.....	109.85	
May 14.....	38,932	740.00	do.....	116.80	
Do.....	35,879	682.00	do.....	107.64	
Do.....	41,505	789.00	do.....	124.52	
Do.....	37,689	716.00	do.....	113.07	
Do.....	40,310	766.00	do.....	120.93	
May 15.....	38,475	731.00	do.....	115.43	
May 16.....	41,480	788.00	do.....	124.44	
Do.....	41,404	786.00	do.....	124.21	
Do.....	41,334	785.00	do.....	124.00	
May 18.....	41,059	780.00	do.....	123.18	
May 20.....	34,858	662.00	do.....	104.57	
Do.....	36,146	667.00	do.....	108.44	
May 22.....	36,581	695.00	do.....	109.74	
May 23.....	41,103	781.00	do.....	123.31	
May 24.....	38,838	738.00	do.....	116.51	
May 27.....	32,600	619.00	do.....	97.80	\$0.68
May 28.....	43,010	817.00	do.....	129.03	
May 29.....	40,974	779.00	do.....	122.92	
Do.....	38,474	731.00	do.....	115.42	
May 30.....	36,193	688.80	do.....	108.58	
Total.....	12,439,068	217,031.00		35,083.31	6.68

Tabulated statement showing the date of arrival, quantity, appraised value, country of origin, and duties collected, in the district of Oswegatchie, N. Y., on each importation of pulp wood in the district of Oswegatchie, N. Y., from January 1, 1907, to June 1, 1908.

Date.	Quantity.	Appraised value.	Country of origin.	Duty.
1907.	<i>Cords.</i>			
January 2.....	44	\$220.00	Campbells Bay, Canada.....	Free.
January 4.....	22	110.00	do.....	Free.
January 7.....	12	60.00	Gracefield, Canada.....	Free.
January 8.....	11	58.00	Quebec, Canada.....	Free.
Do.....	10	35.00	do.....	Free.
Do.....	10	35.00	do.....	Free.
Do.....	10	35.00	do.....	Free.
Do.....	11	55.00	North Wakefield, Canada.....	Free.
Do.....	11	55.00	do.....	Free.
January 9.....	10	35.00	Quebec, Canada.....	Free.
Do.....	10	35.00	do.....	Free.
January 10.....	10	35.00	do.....	Free.
Do.....	10	35.00	do.....	Free.
Do.....	17	89.00	do.....	Free.
Do.....	13	71.00	Beaupre, Quebec, Canada.....	Free.
Do.....	11	55.00	Gracefield, Canada.....	Free.
January 11.....	10	53.00	Quebec, Canada.....	Free.
Do.....	7	41.00	do.....	Free.
January 12.....	12	63.00	do.....	Free.
January 16.....	9	50.00	do.....	Free.
January 18.....	21	55.00	North Wakefield, Canada.....	Free.
January 21.....	11	55.00	do.....	Free.
January 23.....	10	35.00	Quebec, Canada.....	Free.
January 24.....	10	35.00	do.....	Free.
Do.....	11	60.00	do.....	Free.
January 28.....	10	40.00	Snow Road, Canada.....	Free.

PORT OF OGDENSBURG, N. Y.—Continued.

Tabulated statement showing the date of arrival, quantity, appraised value, country of origin, and duties collected, in the district of Oswegatchie, N. Y., on each importation of pulp wood in the district of Oswegatchie, N. Y., from January 1, 1907, to June 1, 1908—Continued.

Date.	Quantitv.	Appraised value.	Country of origin.	Duty.
1907.	<i>Cords.</i>			
January 29.....	16	\$85.00	Quebec, Canada.....	Free.
Do.....	11	55.00	North Wakefield, Canada.....	Free.
Do.....	11	55.00	do.....	Free.
January 30.....	13	70.00	Quebec, Canada.....	Free.
January 31.....	13	68.00	do.....	Free.
Do.....	11	55.00	Wakefield, Canada.....	Free.
February 2.....	14	74.00	Quebec, Canada.....	Free.
Do.....	11	59.00	do.....	Free.
February 8.....	16	86.00	do.....	Free.
Do.....	22	110.00	Wakefield, Canada.....	Free.
February 9.....	10	35.00	Quebec, Canada.....	Free.
Do.....	10	35.00	do.....	Free.
Do.....	13	59.00	Black River, Canada.....	Free.
February 11.....	12	67.00	Quebec, Canada.....	Free.
Do.....	11	55.00	Wakefield, Canada.....	Free.
Do.....	10	45.00	Bulvor, Canada.....	Free.
Do.....	11	55.00	Aylwin, Canada.....	Free.
February 14.....	10	50.00	Proulx, Canada.....	Free.
Do.....	10	50.00	do.....	Free.
Do.....	13	69.00	Quebec, Canada.....	Free.
Do.....	13	50.00	Black River, Canada.....	Free.
February 15.....	13	69.00	Quebec, Canada.....	Free.
Do.....	13	69.00	do.....	Free.
Do.....	33	165.00	Wakefield, Canada.....	Free.
Do.....	22	110.00	do.....	Free.
Do.....	11	55.00	Aylwin, Canada.....	Free.
February 16.....	10	54.00	Quebec, Canada.....	Free.
Do.....	10	54.00	do.....	Free.
February 18.....	10	50.00	Proulx, Canada.....	Free.
Do.....	13	67.00	Quebec, Canada.....	Free.
Do.....	10	50.00	Proulx, Canada.....	Free.
Do.....	10	50.00	do.....	Free.
Do.....	13	70.00	Quebec, Canada.....	Free.
Do.....	14	74.00	do.....	Free.
February 19.....	12	64.00	do.....	Free.
Do.....	14	75.00	do.....	Free.
Do.....	10	50.00	Proulx, Canada.....	Free.
Do.....	10	50.00	do.....	Free.
February 20.....	10	50.00	do.....	Free.
Do.....	12	68.00	Quebec, Canada.....	Free.
Do.....	11	55.00	Aylwin, Canada.....	Free.
February 21.....	10	50.00	Proulx, Canada.....	Free.
Do.....	10	45.00	Bulvor, Canada.....	Free.
February 23.....	22	110.00	Wakefield, Canada.....	Free.
Do.....	13	65.00	Cascades, Canada.....	Free.
March 2.....	10	50.00	Proulx, Canada.....	Free.
Do.....	10	50.00	do.....	Free.
March 4.....	10	50.00	do.....	Free.
March 5.....	10	50.00	do.....	Free.
March 11.....	10	50.00	do.....	Free.
Do.....	11	55.00	Low, Quebec, Canada.....	Free.
March 13.....	10	50.00	Proulx, Canada.....	Free.
Do.....	10	50.00	do.....	Free.
Do.....	10	50.00	do.....	Free.
Do.....	11	55.00	Brennans, Quebec, Canada.....	Free.
Do.....	10	50.00	Campbells Bay, Canada.....	Free.
March 19.....	11	55.00	Sully, Canada.....	Free.
Do.....	10	50.00	Campbells Bay, Canada.....	Free.
March 20.....	10	50.00	Proulx, Canada.....	Free.
Do.....	10	50.00	do.....	Free.
Do.....	10	50.00	do.....	Free.
Do.....	10	50.00	do.....	Free.
March 21.....	10	50.00	do.....	Free.
Do.....	11	55.00	Sully, Canada.....	Free.
Do.....	11	44.00	Brennans, Canada.....	Free.
March 23.....	10	50.00	Proulx, Canada.....	Free.
Do.....	10	50.00	do.....	Free.
Do.....	10	50.00	do.....	Free.
Do.....	10	50.00	do.....	Free.
March 25.....	10	50.00	do.....	Free.
Do.....	10	50.00	do.....	Free.
March 26.....	10	50.00	do.....	Free.
Do.....	10	50.00	do.....	Free.
March 27.....	22	110.00	Ottawa, Canada.....	Free.
March 29.....	11	55.00	do.....	Free.
Do.....	77	\$85.00	Low, Canada.....	Free.

PORT OF OGDENSBURG, N. Y.—Continued.

Tabulated statement showing the date of arrival, quantity, appraised value, country of origin, and duties collected, in the district of Oswegatchie, N. Y., on each importation of pulp wood in the district of Oswegatchie, N. Y., from January 1, 1907, to June 1, 1908—Continued.

Date.	Quantity.	Appraised value.	Country of origin.	Duty.
1907.	<i>Cords.</i>			
March 30	10	\$50.00	Proulx, Canada.	Free.
Do	10	50.00	do	Free.
Do	10	50.00	do	Free.
April 1	10	50.00	do	Free.
Do	10	50.00	do	Free.
Do	10	50.00	do	Free.
Do	10	50.00	do	Free.
Do	10	50.00	do	Free.
Do	10	50.00	Doucet, Canada.	Free.
Do	22	110.00	Low, Canada.	Free.
April 2	22	110.00	do	Free.
Do	55	275.00	Kazabazua, Canada.	Free.
Do	55	275.00	Venosta, Canada.	Free.
April 3	22	110.00	Kazabazua, Canada.	Free.
Do	33	165.00	Low, Canada.	Free.
Do	66	330.00	Gracefield, Canada.	Free.
Do	121	605.00	Kazabazua, Canada.	Free.
April 4	10	50.00	Proulx, Canada.	Free.
Do	10	50.00	Doucet, Canada.	Free.
Do	11	55.00	Low, Canada.	Free.
Do	10	50.00	Doucet, Canada.	Free.
Do	10	50.00	do	Free.
Do	10	50.00	do	Free.
April 5	10	50.00	Proulx, Canada.	Free.
Do	11	55.00	Kazabazua, Canada.	Free.
Do	22	110.00	Low, Canada.	Free.
Do	11	55.00	Kazabazua, Canada.	Free.
April 8	22	110.00	Low, Canada.	Free.
Do	66	330.00	do	Free.
Do	55	275.00	do	Free.
Do	66	330.00	do	Free.
April 9	10	50.00	do	Free.
Do	22	110.00	Venosta, Canada.	Free.
Do	11	55.00	Low, Canada.	Free.
Do	55	275.00	North Wakefield, Canada.	Free.
April 10	22	110.00	Low, Canada.	Free.
Do	22	110.00	do	Free.
Do	33	165.00	Farrelton, Canada.	Free.
Do	66	330.00	do	Free.
April 11	77	385.00	North Wakefield, Canada.	Free.
Do	33	165.00	Low, Canada.	Free.
April 12	10	50.00	Proulx, Canada.	Free.
Do	10	50.00	do	Free.
April 13	10	50.00	Doucet, Canada.	Free.
Do	33	165.00	Farrelton, Canada.	Free.
Do	55	275.00	North Wakefield, Canada.	Free.
April 15	10	50.00	Proulx, Canada.	Free.
Do	122	610.00	Maniwaki, Canada.	Free.
Do	88	440.00	do	Free.
Do	22	110.00	Farrelton, Canada.	Free.
Do	66	330.00	do	Free.
Do	11	55.00	North Wakefield, Canada.	Free.
Do	15	75.00	Brennans, Canada.	Free.
April 16	110	550.00	Burbridge, Canada.	Free.
Do	22	110.00	do	Free.
Do	11	55.00	Gracefield, Canada.	Free.
April 17	66	330.00	do	Free.
April 18	11	55.00	Farrelton, Canada.	Free.
April 19	11	55.00	Low, Canada.	Free.
April 20	11	55.00	do	Free.
Do	22	110.00	Gracefield, Canada.	Free.
Do	66	330.00	Burbridge, Canada.	Free.
Do	77	385.00	Gracefield, Canada.	Free.
Do	22	110.00	do	Free.
Do	10	50.00	Proulx, Canada.	Free.
April 22	33	165.00	Gracefield, Canada.	Free.
Do	33	165.00	do	Free.
Do	44	220.00	do	Free.
April 23	11	55.00	do	Free.
Do	11	55.00	do	Free.
Do	33	165.00	do	Free.
Do	44	220.00	do	Free.
April 25	55	275.00	do	Free.
Do	44	220.00	do	Free.
Do	44	220.00	do	Free.
Do	11	55.00	do	Free.
Do	11	55.00	Farrelton, Canada.	Free.

PORT OF OGDENSBURG, N. Y.—Continued.

Tabulated statement showing the date of arrival, quantity, appraised value, country of origin, and duties collected, in the district of Oswegatchie, N. Y., on each importation of pulp wood in the district of Oswegatchie, N. Y., from January 1, 1907, to June 1, 1908.—Continued.

Date.	Quantity.	Appraised value.	Country of origin.	Duty.
1907.	<i>Cords.</i>			
April 25.....	11	\$55.00	Gracefield, Canada.....	Free.
Do.....	11	55.00	.....do.....	Free.
Do.....	66	330.00	.....do.....	Free.
Do.....	33	165.00	.....do.....	Free.
April 26.....	22	110.00	.....do.....	Free.
Do.....	22	110.00	.....do.....	Free.
Do.....	33	165.00	.....do.....	Free.
Do.....	44	220.00	.....do.....	Free.
Do.....	55	275.00	.....do.....	Free.
Do.....	66	330.00	.....do.....	Free.
April 27.....	11	55.00	.....do.....	Free.
Do.....	11	55.00	.....do.....	Free.
Do.....	11	55.00	.....do.....	Free.
Do.....	22	110.00	.....do.....	Free.
Do.....	88	440.00	.....do.....	Free.
Do.....	11	55.00	.....do.....	Free.
April 29.....	11	55.00	.....do.....	Free.
Do.....	11	55.00	.....do.....	Free.
Do.....	11	55.00	.....do.....	Free.
May 1.....	11	55.00	.....do.....	Free.
Do.....	110	550.00	.....do.....	Free.
May 2.....	66	330.00	Campbells Bay, Canada.....	Free.
Do.....	11	55.00	.....do.....	Free.
May 3.....	11	55.00	Gracefield, Canada.....	Free.
May 6.....	11	55.00	Campbells Bay, Canada.....	Free.
Do.....	11	55.00	Gracefield, Canada.....	Free.
Do.....	33	165.00	Campbells Bay, Canada.....	Free.
May 8.....	11	55.00	.....do.....	Free.
Do.....	22	110.00	Ottawa, Canada.....	Free.
May 9.....	66	330.00	Campbells Bay, Canada.....	Free.
Do.....	11	55.00	.....do.....	Free.
May 11.....	11	55.00	.....do.....	Free.
May 13.....	11	55.00	Kazubazua, Canada.....	Free.
May 15.....	33	165.00	.....do.....	Free.
Do.....	22	110.00	.....do.....	Free.
Do.....	11	55.00	.....do.....	Free.
Do.....	11	55.00	.....do.....	Free.
Do.....	22	110.00	.....do.....	Free.
May 16.....	10	40.00	Wylie, Canada.....	Free.
Do.....	33	165.00	Campbells Bay, Canada.....	Free.
Do.....	22	110.00	Waltham, Canada.....	Free.
Do.....	11	55.00	Campbells Bay, Canada.....	Free.
May 17.....	22	110.00	.....do.....	Free.
Do.....	11	55.00	.....do.....	Free.
May 20.....	22	110.00	.....do.....	Free.
Do.....	33	165.00	Gracefield, Canada.....	Free.
Do.....	33	165.00	Campbells Bay, Canada.....	Free.
May 21.....	11	55.00	.....do.....	Free.
May 22.....	33	165.00	Kazubazua, Canada.....	Free.
May 23.....	10	40.00	Wylie, Canada.....	Free.
May 24.....	22	110.00	Campbells Bay, Canada.....	Free.
Do.....	55	275.00	.....do.....	Free.
Do.....	11	55.00	Wakefield, Canada.....	Free.
Do.....	11	55.00	.....do.....	Free.
Do.....	55	275.00	Kazubazua, Canada.....	Free.
May 25.....	11	55.00	Campbells Bay, Canada.....	Free.
May 27.....	10	40.00	Bass Lake, Canada.....	Free.
Do.....	10	40.00	.....do.....	Free.
Do.....	10	40.00	.....do.....	Free.
Do.....	10	40.00	.....do.....	Free.
Do.....	10	40.00	Chalk River, Canada.....	Free.
Do.....	10	40.00	.....do.....	Free.
Do.....	10	40.00	.....do.....	Free.
Do.....	10	40.00	Bass Lake, Canada.....	Free.
Do.....	55	275.00	Campbells Bay, Canada.....	Free.
June 1.....	44	220.00	.....do.....	Free.
Do.....	33	165.00	.....do.....	Free.
Do.....	11	55.00	Kazubazua, Canada.....	Free.
June 4.....	33	165.00	Gracefield, Canada.....	Free.
Do.....	11	55.00	Campbells Bay, Canada.....	Free.
June 7.....	11	55.00	Kazubazua, Canada.....	Free.
Do.....	55	275.00	.....do.....	Free.
June 14.....	11	55.00	Wakefield, Canada.....	Free.
Do.....	11	55.00	Sullys, Canada.....	Free.
June 19.....	22	110.00	Gracefield, Canada.....	Free.
Do.....	11	55.00	Wakefield Canada.....	Free.
June 20.....	11	55.00	Sullys, Canada.....	Free.

PORT OF OGDENSBURG, N. Y.—Continued.

Tabulated statement showing the date of arrival, quantity, appraised value, country of origin, and duties collected, in the district of Oswegatchie, N. Y., on each importation of pulp wood in the district of Oswegatchie, N. Y., from January 1, 1907, to June 1, 1908.—Continued.

Date.	Quantity.	Appraised value.	Country of origin.	Duties.
1907.	<i>Cords.</i>			
June 21.....	11	\$55.00	Wakefield, Canada.....	Free.
June 22.....	11	55.00	Low, Canada.....	Free.
June 24.....	11	55.00	Gracefield, Canada.....	Free.
June 26.....	33	165.00	do.....	Free.
July 1.....	11	55.00	Wakefield, Canada.....	Free.
July 3.....	11	55.00	Venosta, Canada.....	Free.
Do.....	11	55.00	Wakefield, Canada.....	Free.
July 5.....	11	55.00	do.....	Free.
Do.....	11	55.00	Gracefield, Canada.....	Free.
July 8.....	11	55.00	Venosta, Canada.....	Free.
July 24.....	11	55.00	Gracefield, Canada.....	Free.
Do.....	11	55.00	do.....	Free.
August 1.....	12	79.00	Quebec, Canada.....	Free.
August 6.....	13	82.00	do.....	Free.
Do.....	12	78.00	do.....	Free.
Do.....	10	68.00	do.....	Free.
Do.....	12	78.00	do.....	Free.
Do.....	10	40.00	do.....	Free.
Do.....	10	40.00	Thistles, Canada.....	Free.
Do.....	10	40.00	do.....	Free.
August 9.....	10	40.00	do.....	Free.
August 12.....	11	55.00	Gracefield, Canada.....	Free.
August 15.....	22	110.00	do.....	Free.
August 17.....	107	68.00	Quebec, Canada.....	Free.
Do.....	123	81.00	do.....	Free.
Do.....	22	110.00	Gracefield, Canada.....	Free.
August 19.....	13	93.00	Quebec, Canada.....	Free.
Do.....	11	55.00	Gracefield, Canada.....	Free.
Do.....	22	110.00	do.....	Free.
August 20.....	14	95.00	Quebec, Canada.....	Free.
Do.....	11	72.00	do.....	Free.
August 21.....	33	165.00	Gracefield, Canada.....	Free.
August 22.....	12	79.00	Quebec, Canada.....	Free.
August 23.....	11	55.00	Gracefield, Canada.....	Free.
August 24.....	11	75.00	Quebec, Canada.....	Free.
August 26.....	22	110.00	Gracefield, Canada.....	Free.
August 27.....	11	74.00	Quebec, Canada.....	Free.
Do.....	14	95.00	do.....	Free.
Do.....	11	72.00	do.....	Free.
Do.....	13	85.00	do.....	Free.
Do.....	13	89.00	do.....	Free.
Do.....	10	66.00	do.....	Free.
August 28.....	14	91.00	do.....	Free.
Do.....	13	84.00	do.....	Free.
August 29.....	12	77.00	do.....	Free.
Do.....	13	83.00	do.....	Free.
August 30.....	11	73.00	do.....	Free.
Do.....	13	84.00	do.....	Free.
Do.....	13	87.00	do.....	Free.
Do.....	13	85.00	do.....	Free.
September 2.....	12	40.00	Chalk River, Canada.....	Free.
Do.....	11	71.00	Quebec, Canada.....	Free.
September 3.....	14	90.00	do.....	Free.
Do.....	13	83.00	do.....	Free.
Do.....	15	94.00	do.....	Free.
Do.....	12	80.00	do.....	Free.
Do.....	10	67.00	do.....	Free.
Do.....	12	78.00	do.....	Free.
Do.....	14	90.00	do.....	Free.
Do.....	13	87.00	do.....	Free.
Do.....	13	85.00	do.....	Free.
Do.....	11	76.00	do.....	Free.
Do.....	11	76.00	do.....	Free.
Do.....	11	74.00	do.....	Free.
Do.....	12	79.00	do.....	Free.
September 5.....	14	90.00	do.....	Free.
Do.....	12	78.00	do.....	Free.
Do.....	13	83.00	do.....	Free.
Do.....	14	90.00	do.....	Free.
Do.....	12	81.00	do.....	Free.
Do.....	22	110.00	North Wakefield, Canada.....	Free.
Do.....	13	83.00	Quebec, Canada.....	Free.
Do.....	13	83.00	do.....	Free.
September 7.....	12	82.00	do.....	Free.
Do.....	11	74.00	do.....	Free.
Do.....	14	94.00	do.....	Free.
Do.....	11	75.00	do.....	Free.

PORT OF OGDENSBURG, N. Y.—Continued.

Tabulated statement showing the date of arrival, quantity, appraised value, country of origin, and duties collected, in the district of Oswegatchie, N. Y., on each importation of pulp wood in the district of Oswegatchie, N. Y., from January 1, 1907, to June 1, 1908—Continued.

Date.	Quantity.	Appraised value.	Country of origin.	Duty.
1907.	<i>Cords.</i>			
September 7	14	\$90.00	Quebec, Canada	Free.
September 9	12	82.00	do.	Free.
Do.	13	86.00	do.	Free.
Do.	22	110.00	North Wakefield, Canada	Free.
September 10	15	95.00	Quebec, Canada	Free.
Do.	9	57.00	do.	Free.
Do.	10	64.00	do.	Free.
Do.	14	91.00	do.	Free.
September 11	10	40.00	Chalk River, Canada	Free.
September 12	13	85.00	Quebec, Canada	Free.
Do.	13	88.00	do.	Free.
Do.	12	77.00	do.	Free.
Do.	13	89.00	do.	Free.
Do.	14	91.00	do.	Free.
Do.	13	84.00	do.	Free.
Do.	33	165.00	North Wakefield, Canada	Free.
September 13	12	76.00	Quebec, Canada	Free.
September 14	20	100.00	St. Gabriels, Canada	Free.
Do.	14½	73.00	do.	Free.
Do.	18½	90.00	do.	Free.
Do.	8	52.00	Quebec, Canada	Free.
September 18	14	70.00	St. Gabriels, Canada	Free.
Do.	12	60.00	do.	Free.
Do.	16	80.00	do.	Free.
Do.	15½	78.00	do.	Free.
Do.	14½	73.00	do.	Free.
Do.	19½	95.00	do.	Free.
Do.	15	100.00	Quebec, Canada	Free.
Do.	11	55.00	do.	Free.
Do.	14½	73.00	St. Gabriels, Canada	Free.
Do.	16	80.00	do.	Free.
Do.	22	110.00	North Wakefield, Canada	Free.
September 21	14	70.00	Quebec, Canada	Free.
Do.	22	110.00	North Wakefield, Canada	Free.
September 23	17	85.00	St. Gabriels, Canada	Free.
September 28	22	110.00	Low, Canada	Free.
Do.	22	110.00	do.	Free.
September 30	15	75.00	St. Gabriels, Canada	Free.
October 1	18	90.00	do.	Free.
Do.	13½	66.00	do.	Free.
October 2	10½	18.00	Ottawa, Canada	Free.
Do.	22½	110.00	Low, Canada	Free.
Do.	14	75.00	St. Gabriels, Canada	Free.
October 3	22	110.00	Low, Canada	Free.
Do.	22	110.00	do.	Free.
Do.	10	40.00	Thistles, Canada	Free.
October 7	16	80.00	St. Gabriels, Canada	Free.
Do.	15	78.00	do.	Free.
Do.	13	65.00	do.	Free.
October 8	15	77.00	do.	Free.
Do.	12	62.00	do.	Free.
Do.	13	65.00	do.	Free.
Do.	15	75.00	do.	Free.
Do.	16	83.00	do.	Free.
Do.	15	75.00	do.	Free.
Do.	11	57.00	do.	Free.
Do.	14	73.00	do.	Free.
Do.	11	55.00	Low, Canada	Free.
October 9	13	68.00	St. Gabriels, Canada	Free.
Do.	13	65.00	do.	Free.
Do.	20	100.00	do.	Free.
October 10	13	65.00	do.	Free.
Do.	10	40.00	Bass Lake, Canada	Free.
Do.	44	220.00	Low, Canada	Free.
Do.	15	75.00	St. Gabriels, Canada	Free.
October 11	16	79.00	do.	Free.
October 12	12	62.00	do.	Free.
October 15	15	75.00	do.	Free.
Do.	15	75.00	do.	Free.
Do.	13½	68.00	do.	Free.
Do.	19	98.00	do.	Free.
October 16	17	83.00	do.	Free.
Do.	16	75.00	do.	Free.
Do.	13	63.00	do.	Free.
October 18	12	63.00	do.	Free.
Do.	10	49.00	do.	Free.

PORT OF OGDENSBURG, N. Y.—Continued.

Tabulated statement showing the date of arrival, quantity, appraised value, country of origin, and duties collected, in the district of Oswegatchie, N. Y., on each importation of pulp wood in the district of Oswegatchie, N. Y., from January 1, 1907, to June 1, 1908—Continued.

Date.	Quantity.	Appraised value.	Country of origin.	Duties.
1907.				
	<i>Cords.</i>			
October 22.....	19	\$95 00	St. Gabriels, Canada.....	Free.
October 24.....	13	65.00	do.....	Free.
Do.....	16	75.00	do.....	Free.
October 25.....	15	76.00	do.....	Free.
Do.....	11	55.00	do.....	Free.
Do.....	15	74.00	do.....	Free.
October 26.....	14	71.00	do.....	Free.
Do.....	18	91.00	do.....	Free.
October 29.....	15	78.00	do.....	Free.
Do.....	15	75.00	do.....	Free.
October 30.....	12	56.00	do.....	Free.
Do.....	15	14.00	do.....	Free.
October 31.....	10½	53.00	do.....	Free.
November 2.....	12	80.00	Clenks, Canada.....	Free.
Do.....	9½	49.00	St. Gabriels, Canada.....	Free.
Do.....	14	71.00	do.....	Free.
Do.....	14	73.00	do.....	Free.
Do.....	12	80.00	Clenks, Canada.....	Free.
November 4.....	16	80.00	Valcartier, Canada.....	Free.
Do.....	19	99.00	do.....	Free.
Do.....	15	85.00	Quebec, Canada.....	Free.
Do.....	19	80.00	St. Gabriels, Canada.....	Free.
November 6.....	18½	94.00	do.....	Free.
November 7.....	14	73.00	do.....	Free.
November 13.....	14	70.00	Valcartier, Canada.....	Free.
Do.....	18	93.00	St. Gabriels, Canada.....	Free.
Do.....	10	10.00	Valcartier, Canada.....	Free.
November 14.....	15	76.00	do.....	Free.
Do.....	16	83.00	do.....	Free.
November 16.....	19	94.00	do.....	Free.
Do.....	14	70.00	do.....	Free.
November 18.....	14	70.00	do.....	Free.
Do.....	13	66.00	do.....	Free.
Do.....	18	93.00	do.....	Free.
November 19.....	11	56.00	do.....	Free.
Do.....	14	73.00	do.....	Free.
November 20.....	14	71.00	do.....	Free.
November 23.....	14	73.00	St. Gabriels, Canada.....	Free.
Do.....	15	75.00	Valcartier, Canada.....	Free.
Do.....	18	93.00	St. Gabriels, Canada.....	Free.
Do.....	14	73.00	do.....	Free.
Do.....	18	93.00	Valcartier, Canada.....	Free.
November 26.....	9½	48.00	do.....	Free.
Do.....	12	63.00	do.....	Free.
1908.				
January 11.....	16	56.00	Black River, Canada.....	Free.
January 17.....	14	42.00	do.....	Free.
January 22.....	14	42.00	do.....	Free.
Do.....	16	48.00	do.....	Free.
January 23.....	13	39.00	do.....	Free.
January 25.....	14	42.00	do.....	Free.
Do.....	20	80.00	Warren, Canada.....	Free.
January 27.....	14	42.00	Black River, Canada.....	Free.
January 30.....	14	42.00	do.....	Free.
February 3.....	13	39.00	do.....	Free.
February 11.....	18	54.00	do.....	Free.
February 21.....	5½	28.00	Low, Canada.....	Free.
February 25.....	14	70.00	do.....	Free.
March 7.....	14	35.00	Black River, Canada.....	Free.
March 9.....	14	35.00	do.....	Free.
March 11.....	10	25.00	do.....	Free.
March 13.....	10	25.00	do.....	Free.
March 18.....	12	30.00	do.....	Free.
March 19.....	12	30.00	do.....	Free.
March 23.....	12	30.00	do.....	Free.
March 25.....	12	30.00	do.....	Free.
March 31.....	12½	31.00	do.....	Free.
April 2.....	12½	31.00	do.....	Free.
April 15.....	11	40.00	Clarendon, Canada.....	Free.
Do.....	11	40.00	do.....	Free.
May 15.....	10	50.00	Petewawa, Canada.....	Free.
Do.....	10	50.00	do.....	Free.
Total.....	8,760	44,143		

PORT OF PLATTSBURG, N. Y.

Ground wood pulp, chemical wood pulp, and printing paper imported from Canada into the District of Champlain, Port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908.

Date of arrival.	Quantity.	Appraised value.	Duty.	Countervailing duty.	Date of arrival.	Quantity.	Appraised value.	Duty.	Countervailing duty.
1907.	Pounds.				1907.	Pounds.			
Jan. 2	51,137	\$390.00	\$42.61	\$3.46	Apr. 6	35,858	\$359.00	\$29.88	\$1.39
4	36,250	178.00	30.21	.....	8	26,086	124.00	30.07	.....
4	65,212	225.00	54.34	.....	8	23,365	90.00	19.47	.....
7	17,568	106.00	14.64	2.20	8	26,806	108.00	22.34	.....
11	30,090	182.00	25.08	3.76	8	66,490	645.00	54.57	2.45
12	40,776	367.00	33.98	.....	9	55,186	887.00	45.99	.....
12	39,725	199.00	33.10	.....	9	38,925	135.00	32.44	.....
14	115,368	1,154.00	96.14	4.33	9	42,858	214.00	35.72	.....
21	20,396	213.00	17.00	.....	10	35,858	359.00	29.88	1.39
21	45,485	222.00	37.90	.....	11	71,716	502.00	59.76	2.69
22	42,753	385.00	35.63	.....	11	39,833	135.00	33.19	.....
22	40,055	450.00	33.38	.....	11	67,513	270.00	56.26	.....
22	143,432	1,434.00	119.53	5.38	11	21,849	90.00	18.21	.....
22	67,717	556.00	66.43	5.19	13	30,000	135.00	25.00	4.25
28	30,575	183.00	25.48	3.82	15	37,565	135.00	31.30	.....
30	30,262	182.00	25.22	3.78	15	50,970	255.00	42.48	.....
Feb. 1	60,772	364.00	50.56	7.58	15	63,768	225.00	53.14	.....
4	43,854	395.00	36.55	.....	15	20,925	279.00	59.10	.....
4	20,880	125.00	17.40	2.61	15	74,242	297.00	61.87	.....
7	31,181	312.00	25.98	1.17	15	23,627	90.00	19.69	.....
11	39,802	358.00	33.17	.....	15	183,968	1,840.00	153.31	6.90
11	156,710	1,567.00	130.59	5.88	16	52,405	198.00	43.67	.....
13	45,033	506.00	37.53	.....	16	36,312	131.00	30.26	.....
13	31,342	313.00	26.12	1.18	16	59,035	203.00	49.20	.....
21	38,803	349.00	32.34	.....	18	66,071	261.00	55.06	.....
25	28,200	141.00	23.50	.....	18	21,957	90.00	18.30	.....
Mar. 4	39,518	375.00	32.93	.....	19	30,000	135.00	25.00	4.84
6	62,939	476.00	44.12	.....	20	21,971	243.00	59.98	.....
8	32,809	295.00	27.34	.....	20	40,435	135.00	33.71	.....
8	22,673	204.00	18.89	.....	22	79,844	270.00	66.54	.....
9	29,236	263.00	24.36	.....	22	50,537	180.00	42.11	.....
11	27,859	313.00	23.22	.....	22	40,228	162.00	33.52	.....
11	28,961	377.00	24.13	.....	22	24,179	99.00	20.15	.....
12	25,740	154.00	21.45	3.22	23	26,792	108.00	22.33	.....
18	20,500	123.00	17.08	2.56	23	22,668	90.00	18.89	.....
19	61,166	550.00	50.97	.....	24	55,311	180.00	46.09	.....
20	85,759	772.00	71.47	.....	25	24,959	99.00	20.80	.....
20	34,496	373.00	28.75	.....	25	22,465	90.00	18.72	.....
21	26,913	108.00	22.43	.....	26	19,375	72.00	16.15	.....
21	40,683	203.00	33.90	.....	29	46,237	180.00	38.53	.....
22	40,443	202.00	33.70	.....	29	22,079	90.00	18.40	.....
23	136,080	1,472.00	113.40	.....	29	33,500	334.00	27.92	.....
23	76,703	690.00	63.92	.....	29	33,350	334.00	27.79	2.40
23	117,180	1,366.00	97.65	.....	29	40,086	135.00	33.41	.....
25	26,913	108.00	22.43	.....	29	62,138	135.00	35.12	.....
25	97,470	1,137.00	81.23	.....	29	69,328	225.00	57.77	.....
25	35,280	412.00	29.40	.....	29	18,280	72.00	15.23	.....
26	87,523	788.00	72.94	.....	29	45,959	189.00	38.50	.....
27	48,607	198.00	40.51	.....	29	51,574	207.00	42.98	.....
28	35,280	412.00	29.40	.....	29	36,685	382.00	30.57	2.63
28	71,716	932.00	59.76	2.09	30	29,000	117.00	24.17	.....
29	23,596	90.00	19.66	.....	30	34,391	144.00	28.66	.....
30	81,136	406.00	67.61	.....	May 1	27,915	90.00	23.26	.....
30	37,086	124.00	30.91	.....	1	45,131	171.00	37.61	.....
30	58,733	207.00	48.94	.....	2	73,370	763.00	61.14	5.28
30	44,545	180.00	37.12	.....	3	30,390	228.00	25.33	.....
Apr. 1	65,178	225.00	54.32	.....	3	32,000	232.00	26.06	4.00
1	37,730	124.00	31.44	.....	4	23,907	90.00	19.92	.....
1	47,482	189.00	39.57	.....	4	42,000	135.00	35.00	.....
1	70,614	279.00	58.85	.....	4	23,382	90.00	19.49	.....
1	74,469	288.00	62.06	.....	6	44,843	108.00	37.37	.....
1	38,711	135.00	32.43	.....	6	88,971	293.00	74.14	.....
1	39,813	199.00	33.18	.....	6	35,337	113.00	27.78	.....
1	46,097	180.00	38.41	.....	8	22,626	90.00	18.86	.....
1	28,431	108.00	23.69	.....	8	134,400	672.00	112.00	16.80
1	38,874	135.00	32.40	.....	8	24,000	144.00	20.00	.....
1	22,809	217.00	19.01	.....	10	50,478	198.00	42.07	.....
2	31,979	108.00	26.65	.....	10	134,400	672.00	112.00	16.80
2	22,698	90.00	18.92	.....	10	60,685	556.00	80.57	5.65
2	35,280	399.00	29.40	.....	11	83,303	417.00	69.42	.....
2	24,752	99.00	20.63	.....	13	35,246	381.00	29.37	.....
2	32,823	113.00	27.35	.....	13	46,980	563.00	39.18	.....
2	71,716	717.00	59.76	2.69	13	42,220	422.00	36.18	2.04
4	50,158	198.00	41.80	.....	13	77,216	270.00	64.35	.....

PORT OF PLATTSBURG, N. Y.—Continued.

Ground wood pulp, chemical wood pulp, and printing paper imported from Canada into the District of Champlain, Port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

Date of arrival.	Quantity.	Appraised value.	Duty.	Countervailing duty.	Date of arrival.	Quantity.	Appraised value.	Duty.	Countervailing duty.
1907.	Pounds.				1907.	Pounds.			
May 13	49,473	\$198.00	\$41.23	-----	June 6	37,441	\$124.00	\$31.20	-----
13	33,600	168.00	28.00	\$4.20	7	33,600	168.00	28.00	\$4.20
13	20,485	229.00	25.40	3.81	7	49,218	198.00	41.02	-----
13	30,000	135.00	25.00	5.37	7	75,300	259.00	62.75	-----
14	53,925	374.00	44.94	6.86	7	111,592	1,116.00	92.99	8.03
15	23,575	90.00	19.65	-----	10	43,053	180.00	35.88	-----
15	33,600	168.00	28.00	4.20	10	38,592	135.00	32.16	-----
15	33,600	168.00	28.00	4.20	10	49,787	169.00	41.49	-----
15	35,240	381.00	29.37	-----	10	34,620	415.00	28.85	-----
15	93,705	984.00	78.09	3.51	10	75,162	288.00	62.64	-----
15	60,000	270.00	50.00	12.36	10	41,470	431.00	34.56	-----
16	31,235	328.00	26.03	1.17	10	28,800	173.00	24.00	-----
17	212,760	1,489.00	177.30	7.08	11	37,597	135.00	31.33	-----
18	65,514	261.00	54.60	-----	11	100,800	504.00	84.00	12.60
18	46,888	189.00	39.07	-----	12	32,130	193.00	26.78	4.02
18	50,528	207.00	42.11	-----	12	108,676	338.00	90.56	-----
18	27,420	90.00	22.85	-----	12	22,757	90.00	18.96	-----
18	51,725	402.00	43.11	5.21	12	65,000	293.00	54.17	15.35
20	22,800	144.00	19.00	-----	12	28,800	173.00	24.00	-----
20	20,000	145.00	16.67	-----	14	61,404	368.00	51.17	7.68
20	37,663	135.00	31.39	-----	14	82,110	493.00	68.43	10.26
20	27,246	108.00	22.71	-----	14	36,814	135.00	30.68	-----
20	57,600	346.00	48.00	-----	15	24,931	99.00	20.78	-----
20	64,585	620.00	53.82	6.13	15	51,405	198.00	42.84	-----
20	35,090	355.00	31.77	-----	15	73,864	248.00	61.55	-----
22	47,536	189.00	39.61	-----	17	70,686	424.00	58.91	8.84
22	55,466	216.00	46.22	-----	17	19,488	72.00	15.41	-----
22	26,027	108.00	21.69	-----	17	48,529	169.00	40.44	-----
22	64,497	214.00	53.75	-----	17	50,739	180.00	42.28	-----
22	39,398	135.00	32.83	-----	18	45,240	453.00	37.70	3.26
22	33,600	168.00	28.00	4.20	18	33,600	168.00	28.00	.43
23	54,180	586.00	45.15	-----	18	28,800	173.00	24.00	-----
24	69,368	694.00	57.81	4.99	18	34,684	361.00	28.90	2.50
24	34,620	374.00	28.85	-----	19	56,406	338.00	47.01	7.05
24	48,438	169.00	40.37	-----	19	30,702	184.00	25.59	3.84
25	77,212	297.00	64.34	-----	19	56,068	216.00	46.72	-----
25	50,053	169.00	41.71	-----	19	38,559	124.00	32.13	-----
25	28,620	226.00	23.85	2.06	19	67,200	336.00	56.00	.85
27	71,052	279.00	59.21	-----	21	57,500	258.00	47.92	11.54
27	37,127	124.00	30.94	-----	22	30,702	184.00	25.59	3.84
28	37,234	124.00	31.03	-----	22	31,860	175.00	30.53	-----
28	34,327	113.00	28.61	-----	24	63,309	214.00	50.01	-----
28	68,317	270.00	56.93	-----	24	64,856	214.00	54.05	-----
28	26,504	108.00	22.09	-----	24	40,201	162.00	33.50	-----
28	57,500	259.00	47.92	14.06	24	50,262	198.00	41.89	-----
30	45,827	180.00	38.19	-----	24	55,357	207.00	46.13	-----
30	26,704	90.00	22.25	-----	24	103,313	349.00	86.09	-----
31	33,600	168.00	28.00	4.20	24	54,557	216.00	45.46	-----
31	25,080	171.00	20.90	-----	24	71,972	288.00	59.98	-----
31	35,944	124.00	29.95	-----	24	30,842	101.00	25.70	-----
31	27,079	108.00	22.57	-----	24	67,500	304.00	56.25	17.06
31	68,262	261.00	56.89	-----	25	59,995	203.00	50.00	-----
June 1	24,922	90.00	20.77	-----	25	24,000	108.00	20.00	-----
1	72,602	288.00	60.50	-----	26	117,800	707.00	98.17	14.73
1	57,600	283.00	48.00	7.20	26	56,406	338.00	47.01	7.05
2	48,677	198.00	40.56	-----	27	87,108	534.00	72.59	10.89
2	40,588	135.00	33.82	-----	27	35,600	415.00	29.68	-----
2	63,395	225.00	52.83	-----	27	33,600	168.00	28.80	.43
2	62,687	214.00	52.24	-----	27	100,800	504.00	84.00	1.28
2	36,909	124.00	30.76	-----	28	31,816	342.00	26.51	-----
2	47,322	189.00	39.44	-----	29	39,822	135.00	33.19	-----
2	91,320	369.00	76.10	-----	29	81,976	270.00	68.31	-----
2	67,200	336.00	56.00	8.40	29	80,548	315.00	67.12	-----
4	100,817	605.00	84.01	12.60	July 1	18,169	72.00	15.14	-----
4	62,118	373.00	51.77	7.76	1	56,212	650.00	46.84	-----
5	31,149	101.00	25.96	-----	2	35,700	214.00	29.75	4.46
5	33,600	168.00	28.00	4.20	3	109,773	365.00	91.48	-----
5	100,800	504.00	84.00	12.60	3	30,702	179.00	25.59	3.84
5	122,808	737.00	102.34	15.35	3	32,844	197.00	27.37	4.11
5	108,528	651.00	90.44	13.57	3	30,702	184.00	25.59	3.84
6	30,702	184.00	25.59	3.84	4	93,322	315.00	77.77	-----
6	27,514	108.00	22.93	-----	4	30,702	179.00	25.59	3.84
6	79,128	324.00	65.94	-----	4	30,702	184.00	25.59	3.84

PORT OF PLATTSBURG, N. Y.—Continued.

Ground wood pulp, chemical wood pulp, and printing paper imported from Canada into the District of Champlain, Port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

Date of arrival.	Quantity.	Appraised value.	Duty.	Countervailing duty.	Date of arrival.	Quantity.	Appraised value.	Duty.	Countervailing duty.
1907.	Pounds.				1907.	Pounds.			
July 5	27,572	\$90.00	\$22.98	.....	July 29	168,000	\$940.00	\$140.00	\$2.12
5	78,307	315.00	65.26	.....	30	39,103	124.00	32.59	.....
5	44,385	158.00	36.99	.....	31	53,621	180.00	44.68	.....
5	126,074	628.00	105.02	\$28.66	31	155,904	1,091.00	129.92	5.85
6	31,816	342.00	26.51	3.98	Aug. 1	124,723	873.00	103.94	4.68
6	33,600	168.00	28.00	.43	1	31,611	221.00	26.34	1.19
8	53,004	180.00	44.17	.....	1	57,500	259.00	47.92	15.37
8	141,339	506.00	117.78	.....	2	45,240	452.00	37.70	3.26
8	57,941	216.00	48.28	.....	2	93,018	315.00	77.52	.....
8	69,994	279.00	58.33	.....	2	26,552	90.00	22.13	.....
8	22,995	90.00	19.16	.....	2	72,835	248.00	60.70	.....
8	37,909	124.00	31.59	.....	3	82,970	281.00	69.15	.....
8	18,900	118.00	15.75	2.36	3	169,218	1,015.00	141.02	21.15
8	136,249	954.00	113.54	5.11	5	98,967	304.00	74.97	.....
8	65,000	293.00	54.17	16.58	5	32,736	101.00	27.28	.....
9	216,260	2,271.00	180.22	8.11	6	90,084	303.00	75.07	.....
10	58,422	205.00	48.69	.....	6	22,620	226.00	18.85	1.63
10	22,722	90.00	18.94	.....	8	60,000	270.00	50.00	14.11
10	27,228	171.00	22.69	3.40	8	47,417	158.00	39.51	.....
11	88,865	622.00	74.05	3.33	8	26,484	108.00	22.07	.....
11	31,516	126.00	26.26	.....	9	125,288	877.00	104.41	4.70
11	29,828	117.00	24.86	.....	10	74,991	248.00	62.49	.....
11	127,233	477.00	106.03	.....	10	34,684	347.00	28.90	2.50
12	67,200	337.00	56.00	.85	10	38,400	230.00	32.00	.....
12	129,483	464.00	107.90	.....	12	44,000	220.00	36.67	.....
15	67,443	225.00	66.20	.....	12	49,016	169.00	40.85	.....
15	67,200	336.00	56.00	.85	12	36,915	135.00	30.76	.....
15	46,160	499.00	38.47	.....	13	124,723	873.00	103.94	4.68
15	34,880	377.00	29.07	.....	14	63,584	234.00	52.99	.....
15	22,620	226.00	18.85	1.63	14	30,914	309.00	25.76	2.23
15	33,600	168.00	28.00	.43	14	213,876	2,021.00	178.31	19.69
15	59,080	364.00	49.23	3.79	15	94,926	320.00	79.11	.....
15	24,180	226.00	20.15	1.74	15	43,000	210.00	35.83	.....
16	84,684	572.00	70.57	12.98	16	37,563	124.00	31.29	.....
17	45,910	254.00	38.26	7.96	16	30,420	192.00	25.35	3.80
17	188,000	940.00	156.67	.....	17	94,833	664.00	79.03	3.56
17	86,231	293.00	71.86	.....	19	96,042	351.00	80.04	.....
18	130,959	917.00	109.13	4.91	21	56,406	338.00	47.01	7.05
18	46,160	607.00	38.47	.....	21	39,984	240.00	33.32	5.00
18	66,441	214.00	55.37	.....	21	149,744	749.00	126.79	.....
19	30,702	184.00	25.59	3.84	22	55,042	672.00	45.87	3.96
19	30,702	101.00	25.59	.....	22	51,570	325.00	42.97	6.44
19	197,116	2,070.00	164.26	7.23	22	148,512	891.00	123.76	18.56
20	54,860	347.00	46.12	5.43	22	40,212	135.00	33.51	.....
20	38,120	135.00	31.77	.....	23	51,578	325.00	42.98	6.45
20	32,180	241.00	26.82	.....	23	166,173	1,093.00	130.14	5.86
22	140,120	1,515.00	116.77	.....	23	147,813	1,035.00	123.18	5.54
22	62,792	440.00	52.33	2.35	23	36,778	124.00	30.65	.....
22	78,428	270.00	65.36	.....	23	38,148	135.00	31.79	.....
22	98,770	315.00	82.31	.....	23	38,240	135.00	31.87	.....
22	77,700	259.00	64.75	.....	23	43,747	146.00	36.46	.....
22	41,012	162.00	34.18	.....	24	155,676	1,090.00	129.73	5.84
22	27,128	90.00	22.62	.....	26	263,751	1,583.00	219.79	32.97
22	67,500	304.00	56.25	18.05	26	162,078	973.00	135.07	20.26
22	67,200	336.00	56.85	.....	26	110,670	664.00	92.23	13.63
23	6,192	376.00	30.16	2.61	26	100,800	504.00	84.00	1.28
23	137,860	846.00	114.88	7.60	26	168,000	840.00	140.00	21.00
23	67,039	469.00	55.87	2.51	27	71,497	248.00	59.58	.....
23	33,600	168.00	28.00	.43	27	30,702	184.00	25.59	3.84
24	89,042	304.00	74.20	.....	27	30,702	184.00	25.59	3.84
25	36,260	392.00	30.22	.....	27	30,702	184.00	25.59	.....
25	89,100	563.00	74.25	7.34	28	38,496	121.00	32.08	.....
26	33,176	332.00	27.65	2.38	28	76,321	259.00	63.60	3.84
26	106,672	640.00	88.89	13.33	28	37,786	135.00	31.49	.....
26	90,742	293.00	75.62	.....	28	39,178	124.00	32.66	.....
26	135,400	672.00	112.00	1.71	29	39,326	135.00	32.77	.....
27	30,681	184.00	25.57	3.84	29	62,684	439.00	52.24	2.25
27	62,361	437.00	61.97	2.34	Sept. 2	37,301	124.00	31.08	.....
29	94,833	664.00	79.03	3.56	2	77,082	259.00	64.24	.....
29	62,362	437.00	61.97	2.34	2	77,944	258.00	64.95	.....
29	115,500	577.00	96.25	.....	2	51,272	513.00	42.73	3.66
29	50,000	225.00	41.67	.....	2	60,690	364.00	50.58	7.59
29	25,079	248.00	62.67	.....	3	125,798	881.00	104.83	4.72
29	132,090	793.00	110.08	16.51	3	39,830	135.00	33.19	.....

PORT OF PLATTSBURG, N. Y.—Continued.

Ground wood pulp, chemical wood pulp, and printing paper imported from Canada into the District of Champlain, Port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

Date of arrival.	Quantity.	Appraised value.	Duty.	Countervailing duty.	Date of arrival.	Quantity.	Appraised value.	Duty.	Countervailing duty.
1907.	Pounds.				1907.	Pounds.			
Sept. 4	45,240	\$470.00	\$37.70	\$3.26	Oct. 3	31,816	\$382.00	\$26.51	\$3.98
5	30,702	184.00	25.58	3.84	3	31,816	382.00	26.51	3.98
5	78,546	259.00	65.47	.....	3	37,336	124.00	31.11	.....
5	78,777	370.00	65.65	.....	3	35,328	144.00	29.64	.....
6	41,983	135.00	34.94	.....	4	58,778	621.00	48.98	7.35
6	95,400	601.00	79.50	11.93	4	18,740	75.00	15.62	.....
7	83,385	589.00	69.49	10.42	4	35,220	423.00	29.35	.....
7	70,640	848.00	58.87	.....	4	34,620	415.00	28.85	.....
7	85,320	400.00	29.43	.....	4	57,700	692.00	48.08	.....
9	25,865	90.00	21.55	.....	4	39,494	135.00	32.91	.....
9	37,356	124.00	31.13	.....	4	78,737	333.00	65.61	.....
9	46,980	424.00	39.15	.....	4	38,953	135.00	32.46	.....
9	91,950	623.00	76.63	11.49	4	39,321	135.00	32.77	.....
9	78,207	259.00	65.17	.....	5	120,280	1,433.00	100.23	.....
9	95,174	315.00	79.31	.....	5	28,726	90.00	22.27	.....
10	45,240	452.00	37.70	3.26	7	70,513	248.00	58.76	.....
11	35,220	381.00	29.35	.....	7	30,750	311.00	25.63	3.84
11	45,240	452.00	37.70	3.26	7	22,620	226.00	18.85	1.63
11	40,000	180.00	33.33	11.92	7	45,240	452.00	37.70	3.26
11	79,924	799.08	66.61	5.76	7	28,720	336.00	23.93	.....
12	28,110	177.00	23.43	3.51	7	122,818	737.00	102.34	15.35
13	35,320	368.00	29.43	.....	7	35,240	423.00	29.37	.....
13	117,634	394.00	98.03	.....	7	74,237	891.00	61.86	9.28
14	76,745	259.00	63.95	.....	7	63,632	764.00	53.03	7.95
14	78,398	270.00	65.33	.....	7	59,970	368.00	49.98	7.50
16	65,160	738.00	54.30	.....	7	45,240	452.00	37.70	3.26
16	35,220	381.00	29.35	.....	7	22,620	226.00	18.85	1.63
17	107,573	753.00	89.64	4.03	7	22,620	226.00	18.85	1.63
17	22,420	226.00	18.85	1.63	7	39,748	135.00	33.12	.....
17	90,509	315.00	75.42	.....	7	51,000	180.00	42.50	.....
18	89,182	304.00	74.32	.....	10	84,648	931.00	70.54	10.58
18	28,060	182.00	23.38	1.75	11	62,446	659.00	52.04	7.81
18	63,632	464.00	53.03	7.95	11	61,550	676.00	51.29	7.69
18	29,740	368.00	24.78	.....	11	30,277	306.00	25.23	3.78
18	45,240	452.00	37.70	3.26	11	34,620	424.00	28.85	.....
19	78,996	270.00	65.83	.....	11	90,512	315.00	75.43	.....
19	112,003	1,120.00	93.34	14.00	11	31,816	382.00	26.51	3.98
20	77,740	608.00	64.79	11.70	11	41,527	135.00	34.61	.....
20	36,557	135.00	30.46	.....	11	31,816	382.00	26.51	3.98
21	43,671	180.00	36.39	.....	12	29,035	183.00	24.20	3.63
21	28,060	182.00	23.38	1.75	12	64,844	665.00	54.04	4.67
21	95,448	1,145.00	79.54	11.93	14	22,620	235.00	18.85	1.63
23	23,080	182.00	19.23	.....	14	57,600	346.00	48.00	.....
23	45,240	452.00	37.70	3.26	14	71,716	502.00	59.76	2.69
24	30,000	135.00	25.00	6.73	14	43,212	782.00	72.02	8.32
26	142,506	1,434.00	118.75	10.26	15	67,664	236.00	56.39	.....
26	38,498	124.00	32.06	.....	16	111,901	393.00	93.25	.....
27	42,768	135.00	35.64	.....	16	79,968	281.00	66.64	.....
27	46,121	158.00	38.43	.....	16	30,702	184.00	25.59	3.84
27	36,859	124.00	30.72	.....	16	31,817	387.00	26.51	3.98
27	44,194	180.00	36.83	.....	16	58,407	701.00	48.67	7.30
27	48,695	189.00	40.58	.....	16	21,210	255.00	17.68	2.65
27	31,815	382.00	26.51	3.98	17	75,816	270.00	63.18	.....
27	31,815	382.00	26.51	3.98	17	41,752	180.00	34.79	.....
27	31,815	382.00	26.51	3.98	17	166,817	1,168.00	139.01	6.26
27	36,450	237.00	30.38	4.56	17	60,690	364.00	50.58	7.59
27	127,841	895.00	106.53	4.79	18	40,000	180.00	33.34	8.79
28	130,959	917.00	109.13	4.91	19	54,536	216.00	45.45	.....
30	21,210	255.00	17.68	2.65	21	30,550	305.00	25.46	3.82
30	68,178	225.00	56.82	.....	21	67,106	671.00	55.92	4.83
30	63,633	764.00	53.03	7.95	21	39,707	135.00	33.09	.....
30	35,898	359.00	29.92	4.49	21	137,195	960.00	114.33	5.14
30	34,620	415.00	28.85	.....	21	63,632	764.00	53.03	7.95
30	45,240	470.00	37.70	3.26	21	38,165	135.00	31.80	.....
Oct. 1	66,380	270.00	55.32	.....	22	30,000	135.00	25.00	4.85
1	67,860	679.00	56.55	4.89	23	39,984	240.00	33.32	5.00
2	116,659	1,400.00	97.22	14.58	23	57,304	573.00	47.76	4.13
2	45,240	452.00	37.70	3.26	24	86,416	605.00	72.01	3.24
2	90,480	905.00	75.40	6.51	25	48,818	189.00	40.68	.....
2	65,420	412.00	54.62	8.18	25	131,952	450.00	109.96	.....
3	30,808	194.00	25.67	3.85	28	52,594	216.00	43.83	.....
3	71,716	502.00	59.76	2.60	28	22,451	90.00	18.71	.....
3	137,195	960.00	114.33	5.14	28	118,984	416.00	99.15	.....
3	116,658	1,400.00	97.22	14.58	28	22,620	226.00	18.85	1.63

PORT OF PLATTSBURG, N. Y.—Continued.

Ground wood pulp, chemical wood pulp, and printing paper imported from Canada into the District of Champlain, Port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

Date of arrival.	Quantity.	Appraised value.	Duty.	Countervailing duty.	Date of arrival.	Quantity.	Appraised value.	Duty.	Countervailing duty.
1907.	Pounds.				1907.	Pounds.			
Oct. 28	71,203	\$248.00	\$59.34	.....	Nov. 22	32,840	\$185.00	\$27.37	.....
28	181,762	2,567.00	151.47	\$6.82	22	64,240	385.00	53.53	88.03
28	173,053	2,444.00	144.21	6.49	22	24,360	362.00	20.30	.....
28	99,405	606.00	82.84	3.73	25	96,360	578.00	80.30	12.05
29	45,240	452.00	37.70	3.26	25	70,479	493.00	58.73	2.64
29	32,800	135.00	27.33	.....	25	71,716	753.00	58.76	2.69
29	67,106	675.00	55.92	4.83	25	55,042	550.00	45.87	3.96
30	34,750	232.00	28.96	1.30	25	32,422	337.00	27.02	.....
31	100,827	360.00	84.02	.....	28	22,620	235.00	18.85	1.63
31	32,300	135.00	26.97	.....	28	117,040	702.00	97.53	14.63
Nov. 1	47,874	180.00	39.90	.....	28	32,120	193.00	26.77	4.02
1	75,833	270.00	63.19	.....	29	71,716	502.00	58.76	2.69
1	48,351	216.00	40.29	.....	30	316,485	2,215.00	263.74	11.87
1	22,620	226.00	18.85	1.63	Dec. 2	101,337	709.00	84.45	2.80
2	74,405	745.00	62.08	5.36	2	27,960	335.00	23.30	.....
2	132,010	842.00	110.01	16.50	2	71,716	502.00	58.76	2.69
2	43,207	302.00	36.01	.....	2	71,716	502.00	58.76	2.69
4	41,153	180.00	34.29	.....	2	82,629	868.00	68.86	3.10
4	49,378	180.00	41.15	.....	2	117,015	1,152.00	97.52	8.43
4	39,281	135.00	32.73	.....	3	248,842	1,742.00	207.37	9.33
4	35,016	135.00	29.18	.....	3	310,249	2,172.00	258.54	11.63
4	24,125	108.00	20.10	.....	3	79,380	484.00	66.15	.....
4	42,502	180.00	35.42	.....	4	105,719	740.00	88.10	3.96
6	34,400	135.00	28.67	.....	4	38,400	230.00	32.00	.....
6	33,300	135.00	27.75	.....	6	67,840	679.00	56.55	4.89
6	92,100	553.00	76.75	.....	6	74,646	746.00	62.21	5.37
7	33,100	135.00	27.58	.....	6	32,120	193.00	26.77	4.02
7	30,565	229.00	25.47	3.82	6	119,260	1,431.00	99.38	.....
7	179,290	2,532.00	149.41	6.72	7	71,180	854.00	56.32	.....
8	143,432	1,004.00	119.53	5.38	9	71,381	288.00	58.48	.....
8	16,588	166.00	13.82	1.19	9	35,280	423.00	29.40	.....
8	125,600	754.00	104.67	.....	9	251,005	1,757.00	209.17	9.41
8	24,000	108.00	20.00	.....	9	239,568	1,677.00	199.64	8.96
8	42,083	180.00	35.07	.....	9	219,825	1,539.00	183.19	8.24
8	48,000	216.00	40.00	.....	10	96,360	578.00	80.30	12.05
8	40,000	180.00	33.33	.....	10	86,395	378.00	72.00	.....
9	140,244	1,402.00	116.67	15.79	10	128,701	901.00	107.25	4.83
9	64,350	675.00	53.63	2.41	11	61,103	369.00	50.92	1.91
9	143,432	1,004.00	119.53	5.38	11	70,479	740.00	58.73	2.64
9	50,000	225.00	41.67	.....	12	51,637	198.00	43.03	.....
9	50,979	216.00	42.48	.....	12	146,832	1,028.00	122.36	5.51
9	41,798	180.00	34.53	4.83	12	311,808	2,183.00	259.84	11.69
11	67,106	671.00	55.92	.....	13	35,920	431.00	29.93	.....
11	18,608	72.00	15.51	.....	13	94,960	1,140.00	79.13	.....
11	18,261	72.00	15.22	.....	14	280,627	1,964.00	233.86	10.52
12	75,409	315.00	62.84	.....	14	24,200	293.00	20.17	.....
12	82,251	315.00	68.54	.....	14	35,960	431.00	29.92	.....
12	25,560	108.00	21.30	.....	16	75,720	454.00	63.10	8.47
12	32,422	337.00	27.02	2.34	16	74,170	869.00	61.81	.....
13	20,700	124.00	17.25	.....	16	56,120	421.00	46.77	1.75
13	94,200	565.00	78.50	.....	18	84,448	844.00	70.37	6.08
13	25,710	108.00	21.43	.....	18	98,219	688.00	81.85	3.68
13	34,407	135.00	28.67	.....	18	24,780	297.00	20.65	.....
14	36,921	135.00	30.77	.....	18	35,920	431.00	29.93	.....
14	85,287	369.00	71.07	.....	19	245,750	1,720.00	204.79	9.22
14	31,110	249.00	25.93	3.89	19	276,662	1,930.00	230.55	10.37
15	30,990	310.00	25.83	3.87	20	124,723	873.00	103.94	4.68
16	190,203	1,998.00	158.51	7.13	21	59,660	358.00	49.72	7.46
16	76,908	769.00	64.09	5.64	21	35,920	431.00	29.93	.....
16	37,160	446.00	30.97	.....	21	61,320	736.00	51.10	.....
18	32,840	197.00	27.37	.....	23	45,240	452.00	37.70	3.26
18	75,400	754.00	62.83	.....	23	57,304	573.00	47.75	4.13
18	95,620	1,147.00	79.68	.....	23	59,781	373.00	49.82	.....
18	24,000	144.00	20.00	.....	24	79,924	799.00	66.60	5.75
19	22,620	235.00	18.85	1.63	25	107,574	753.00	89.65	4.03
19	26,560	185.00	22.13	.....	25	26,400	158.00	22.00	3.30
19	71,716	502.00	58.76	2.69	26	128,480	771.00	107.07	16.08
19	32,422	324.00	27.02	2.23	26	19,200	115.00	16.00	.....
19	74,761	259.00	62.30	.....	27	107,574	753.00	89.65	4.08
20	57,304	573.00	47.75	4.13	27	143,432	1,004.00	119.53	5.38
20	24,360	292.00	20.30	.....	27	207,300	2,488.00	172.75	.....
20	35,880	431.00	29.90	.....	28	35,858	251.00	29.88	1.34
20	32,860	185.00	27.38	.....	28	16,060	96.00	13.30	2.01
21	19,200	115.00	16.00	.....	30	32,120	193.00	26.77	4.02

PORT OF PLATTSBURG, N. Y.—Continued.

Ground wood pulp, chemical wood pulp, and printing paper imported from Canada into the District of Champlain, Port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

Date of arrival.	Quantity.	Appraised value.	Duty.	Countervailing duty.	Date of arrival.	Quantity.	Appraised value.	Duty.	Countervailing duty.
1907.	<i>Pounds.</i>				1908.	<i>Pounds.</i>			
Dec.					Feb.				
30	117,040	\$702.00	\$97.53	\$14.63	17	44,460	\$346.00	\$37.22	.....
30	107,574	753.00	89.65	4.03	17	36,720	220.00	30.60	94.50
30	24,380	293.00	20.32	.....	17	26,394	158.00	22.00	3.38
30	134,600	2,933.00	195.50	.....	18	37,666	135.00	31.39	.....
30	64,240	385.00	53.53	8.03	19	36,720	220.00	30.60	4.59
30	107,574	753.00	89.65	4.03	19	21,800	131.00	18.17	2.73
30	143,432	1,004.00	119.53	5.38	20	37,190	135.00	30.99	.....
31	32,120	193.00	26.77	4.02	21	73,892	739.00	61.58	5.83
31	71,840	898.00	59.87	.....	22	32,530	193.00	26.78	4.02
1908.					22	32,530	193.00	26.78	4.02
Jan.					22	32,530	193.00	26.78	4.02
1	57,340	373.00	47.78	.....	24	63,336	633.00	62.78	4.56
2	36,720	220.00	30.60	4.59	25	66,990	519.00	55.83	4.83
2	128,480	771.00	107.07	16.06	25	53,903	324.00	44.94	6.74
2	28,800	173.00	24.00	.....	25	32,130	193.00	26.78	4.02
3	52,800	317.00	44.00	.....	26	32,130	193.00	26.78	4.02
3	151,623	867.00	126.35	18.95	26	32,130	193.00	26.78	4.02
3	74,340	446.00	61.95	9.29	26	36,720	270.00	30.60	4.59
3	106,646	747.00	88.87	4.00	26	149,751	1,482.00	141.46	12.22
3	71,088	406.00	59.25	2.67	27	32,130	193.00	26.78	4.02
3	179,600	2,245.00	149.67	.....	27	64,280	396.00	53.55	8.03
4	97,520	585.00	81.27	12.19	28	48,980	318.00	40.80	1.53
4	26,400	158.00	22.00	3.30	28	32,130	193.00	26.78	4.02
4	120,460	723.00	100.38	15.06	2	100,980	485.00	84.15	12.63
4	35,920	431.00	29.93	.....	2	32,130	193.00	26.78	4.02
4	71,820	898.00	59.85	.....	3	21,800	131.00	18.17	2.73
4	22,620	226.00	18.85	1.63	5	67,420	454.00	56.18	8.43
6	153,014	1,071.00	127.51	5.74	6	57,340	373.00	47.78	.....
6	35,920	449.00	29.93	.....	7	31,668	317.00	26.39	2.28
6	139,637	1,696.00	116.36	.....	9	66,990	519.00	55.83	4.33
7	154,880	929.00	129.07	19.36	9	57,600	346.00	48.00	.....
7	118,487	829.00	98.74	4.44	12	86,060	516.00	71.72	10.76
7	60,276	753.00	50.23	.....	12	28,800	173.00	24.00	.....
7	109,980	1,308.00	91.76	.....	16	32,130	193.00	26.78	4.02
7	22,620	226.00	18.85	3.30	16	32,130	193.00	26.78	4.02
9	95,101	666.00	79.25	3.57	16	32,130	193.00	26.78	4.02
10	19,270	125.00	16.06	.....	18	58,560	381.00	48.80	.....
10	151,684	1,092.00	126.40	5.69	18	33,694	837.00	69.74	6.03
11	28,670	186.00	23.89	.....	19	43,600	523.00	36.33	5.45
13	32,120	193.00	26.77	4.02	20	31,668	317.00	26.39	5.80
13	71,820	862.00	59.85	.....	20	33,495	260.00	27.91	2.39
13	172,080	1,032.00	143.40	21.51	21	53,930	324.00	44.94	6.74
13	90,640	544.00	75.53	11.33	24	32,130	193.00	26.78	4.02
13	35,910	431.00	29.93	.....	27	68,850	826.00	57.38	.....
15	40,716	407.00	33.93	2.93	30	77,676	602.00	64.73	5.59
16	47,940	312.00	39.95	.....	Apr.	1	33,495	260.00	27.91
17	86,400	518.00	72.00	.....	7	66,990	519.00	55.83	.....
18	45,240	452.00	37.70	3.26	9	38,880	253.00	32.40	.....
20	32,120	193.00	26.77	4.02	9	58,560	381.00	48.80	1.83
20	68,850	413.00	57.38	8.61	13	58,560	381.00	48.80	.....
20	68,620	522.00	57.18	8.58	16	58,560	381.00	48.80	3.66
21	64,260	396.00	53.55	8.03	20	36,720	441.00	30.60	.....
21	34,650	416.00	28.88	.....	21	56,120	365.00	46.77	5.26
21	63,336	633.00	52.78	4.56	27	19,680	128.00	16.40	2.45
22	58,520	351.00	48.77	7.32	27	29,280	190.00	24.40	3.66
22	96,390	578.00	60.33	12.06	28	34,020	408.00	28.35	.....
22	24,796	298.00	20.66	.....	28	76,800	461.00	64.00	.....
22	40,716	407.00	33.93	2.93	30	37,170	446.00	30.98	.....
24	63,336	633.00	52.78	4.56	30	37,170	446.00	30.98	.....
25	214,540	1,287.00	178.82	26.82	30	36,540	434.00	30.45	.....
25	32,120	193.00	26.77	4.02	May	1	38,880	467.00	32.40
25	278,840	1,673.00	232.37	34.86	1	35,920	431.00	29.93	.....
25	35,910	431.00	29.93	.....	1	42,480	510.00	35.40	.....
27	34,650	416.00	28.88	.....	1	25,300	164.00	21.08	3.16
28	33,495	260.00	27.91	65	2	28,060	182.00	23.38	3.51
29	32,130	193.00	26.78	4.02	5	64,776	777.00	53.98	.....
29	25,372	90.00	21.14	.....	5	35,910	431.00	29.93	.....
Feb.					18	75,600	907.00	63.00	.....
1	30,520	183.00	25.43	3.82	18	35,910	431.00	29.93	.....
5	31,668	317.00	26.39	2.28	19	73,710	885.00	61.43	.....
8	32,130	193.00	26.78	4.02	21	77,670	932.00	64.73	.....
12	25,760	180.00	21.47	.97	Total..	54,509,623	368,390.00	45,719.19	2,480.07
13	51,520	361.00	42.93	1.93					
13	31,668	317.00	26.39	2.28					
13	66,990	519.00	55.83	4.82					

PORT OF PLATTSBURG, N. Y.—Continued.

Ground wood pulp, chemical wood pulp, and printing paper imported from Canada into the District of Champlain, Port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

CHEMICAL WOOD PULP.

Date of arrival.	Quantity.	Appraised value.	Duty.	Countervailing duty.	Date of arrival.	Quantity.	Appraised value.	Duty.	Countervailing duty.
1907.	Pounds.				1907.	Pounds.			
Jan. 2	67,421	\$1,025.00	\$112.30	\$8.31	May 13	34,442	\$630.00	\$67.40	\$4.24
2	36,082	680.00	60.14	4.45	13	34,645	711.00	57.74	4.27
2	38,473	727.00	64.12	4.74	13	40,261	763.00	67.10	4.98
3	66,144	1,182.00	110.24	8.15	16	37,976	778.00	63.29	4.68
4	130,047	2,903.00	270.97	20.03	17	36,780	552.00	61.30	.....
4	40,858	720.00	68.10	5.03	17	113,533	1,988.00	189.23	13.99
7	72,359	1,236.00	120.60	8.92	21	89,534	1,729.00	149.23	11.08
8	39,823	696.00	66.37	4.91	22	51,070	766.00	85.12	.....
10	86,493	1,230.00	144.15	10.66	23	41,801	801.00	69.67	5.15
14	41,209	632.00	68.68	5.06	23	44,284	780.00	73.81	5.46
17	74,069	1,245.00	123.45	10.98	28	36,098	693.00	60.16	4.45
19	39,645	747.00	66.08	4.68	June 1	39,576	784.00	65.95	4.88
24	40,490	724.00	67.48	4.99	3	48,534	934.00	81.39	6.02
28	74,062	1,287.00	123.44	9.12	5	129,538	2,442.00	215.89	15.96
29	40,697	722.00	67.83	5.01	11	45,479	967.00	75.80	5.60
Feb. 1	41,685	740.00	69.48	5.13	13	39,315	760.00	65.53	4.84
1	80,243	1,524.00	133.74	9.89	14	37,296	707.00	62.16	4.60
4	84,237	1,501.00	140.40	10.38	17	85,702	1,521.00	142.84	10.56
4	118,055	2,125.00	196.76	15.01	24	80,544	1,424.00	134.24	9.92
5	87,670	1,319.00	145.95	.....	27	47,017	930.00	78.36	5.79
6	41,170	690.00	68.62	5.07	4	39,499	755.00	65.75	4.86
6	36,868	646.00	59.78	4.42	5	47,149	854.00	78.58	5.81
7	69,453	931.00	110.76	8.19	5	174,351	3,162.00	290.58	21.48
8	37,447	562.00	62.41	.....	8	45,903	812.00	76.51	5.06
8	36,726	551.00	61.21	.....	8	44,556	877.00	74.28	.....
9	74,563	1,181.00	124.27	9.19	10	45,170	814.00	75.28	5.57
11	33,647	606.00	56.08	6.01	15	44,161	778.00	73.60	5.44
11	43,061	756.00	71.77	5.30	17	47,292	919.00	78.82	5.83
11	36,541	613.00	60.90	4.50	18	47,179	900.00	78.63	5.81
13	41,040	722.00	68.40	5.06	25	44,496	862.00	74.16	5.48
13	145,804	2,724.00	243.01	17.96	29	40,074	803.00	66.79	4.94
16	36,233	544.00	60.39	.....	Aug. 1	87,953	1,562.00	146.59	10.84
18	36,575	551.00	60.96	.....	1	45,294	854.00	75.49	5.58
18	63,362	1,140.00	105.59	8.48	7	42,821	752.00	71.37	5.28
18	31,974	575.00	53.29	4.28	14	89,334	1,632.00	148.89	11.01
18	76,590	1,147.00	127.65	9.44	15	45,029	871.00	75.05	5.55
21	44,786	674.00	74.64	.....	16	43,793	773.00	72.99	5.40
21	36,273	608.00	60.46	4.47	22	40,411	715.00	67.35	4.99
23	146,760	2,281.00	244.60	18.09	22	47,635	850.00	79.39	5.87
25	38,623	737.00	64.37	4.76	29	44,317	718.00	73.86	5.46
26	108,246	1,844.00	180.45	13.35	Sept. 3	83,866	1,731.00	139.78	10.33
27	37,640	601.00	62.73	4.64	5	36,895	643.00	61.49	4.55
28	43,113	647.00	71.86	.....	7	43,543	950.00	72.57	5.39
Mar. 2	40,327	784.00	67.21	4.97	10	88,355	1,550.00	147.26	10.89
4	41,191	745.00	69.99	5.17	13	82,915	1,520.00	138.19	10.22
4	41,537	790.00	69.23	5.12	16	132,963	2,348.00	221.60	16.38
4	43,238	758.00	72.06	5.33	16	37,061	692.00	61.77	4.67
4	148,778	2,696.00	247.97	18.34	16	43,898	771.00	73.16	5.41
6	120,120	2,211.00	200.22	14.79	19	42,620	764.00	71.03	5.25
6	35,984	646.00	59.98	4.43	23	42,430	741.00	70.72	5.23
6	70,462	1,230.00	117.44	8.68	25	39,383	691.00	65.64	4.85
14	139,125	2,520.00	231.97	17.15	28	32,478	650.00	54.13	.....
14	44,991	788.00	74.99	5.54	Oct. 28	83,581	1,478.00	139.30	10.30
15	41,064	775.00	68.44	5.06	1	94,292	1,808.00	157.16	11.62
21	124,770	2,198.00	207.95	15.38	11	20,293	132.00	33.82	2.50
23	91,737	1,639.00	152.90	11.30	21	43,246	779.00	72.08	5.33
Apr. 1	47,842	897.00	79.74	5.90	Nov. 1	88,835	1,700.00	148.06	10.94
1	46,152	972.00	76.92	5.69	11	34,609	653.00	57.68	4.26
1	43,990	840.00	73.30	5.42	18	40,909	712.00	68.18	5.04
5	84,172	1,573.00	140.29	10.37	14	42,125	740.00	70.21	5.19
10	43,826	776.00	73.05	5.40	15	69,420	1,211.00	115.70	8.58
15	45,042	676.00	75.07	.....	20	18,853	117.00	31.42	2.32
17	46,394	857.00	77.32	5.72	21	41,374	728.00	68.96	5.10
20	45,735	870.00	76.23	5.64	22	36,696	648.00	61.16	4.58
20	40,150	771.00	66.92	4.95	26	166,831	3,101.00	278.05	20.56
20	44,845	673.00	74.74	.....	29	38,597	713.00	64.33	4.78
29	41,060	733.00	68.43	5.06	Dec. 2	37,830	688.00	63.05	4.98
May 3	116,451	2,176.00	194.09	14.34	2	44,022	798.00	73.57	5.42
4	79,663	1,388.00	132.78	9.81	2	40,073	711.00	66.79	4.93
4	39,414	697.00	65.69	4.86	3	47,002	890.00	78.34	5.80
6	36,816	651.00	61.36	4.64	4	36,693	664.00	61.16	4.53
9	36,865	652.00	61.44	4.64	9	115,460	2,825.00	269.08	19.15

PORT OF PLATTSBURG, N. Y.—Continued.

Ground wood pulp, chemical wood pulp, and printing paper imported from Canada into the District of Champlain, Port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

CHEMICAL WOOD PULP—Continued.

Date of arrival.	Quantity.	Appraised value.	Duty.	Countervailing duty.	Date of arrival.	Quantity.	Appraised value.	Duty.	Countervailing duty.
1907.	<i>Pounds.</i>				1908.	<i>Pounds.</i>			
Dec. 12	36,889	\$711.00	\$61.48	\$4.55	Jan. 15	43,225	\$1,082.62	\$72.05	.....
13	39,755	754.00	66.26	4.92	Feb. 27	57,712	1,442.80	96.19	\$16.93
13	14,447	82.00	24.08	1.78	Mar. 7	37,620	564.30	62.70	.....
13	82,952	1,404.00	138.25	10.22	20	31,612	790.30	52.69	.....
16	16,155	96.00	26.93	1.99	24	35,057	876.42	58.44	8.28
16	42,098	754.00	70.16	5.19	25	46,690	700.35	77.82	.....
18	158,530	2,835.00	264.22	19.53	28	73,395	1,834.37	122.33	.....
20	78,013	1,432.00	130.02	9.61	30	27,443	686.07	45.74	5.88
21	12,684	72.00	21.14	1.56	30	44,670	1,116.75	74.45	2.95
23	120,202	2,215.00	200.34	14.81	Apr. 1	111,883	2,407.65	186.47	4.73
27	106,025	2,003.00	176.71	13.06	6	73,264	1,260.00	122.11	9.03
					6	41,343	679.00	68.91	5.09
1908.					9	43,149	787.00	71.92	5.32
Jan. 4	40,859	731.00	68.10	5.03	9	38,548	963.70	69.25	2.80
6	81,269	1,536.00	135.45	10.05	10	41,485	657.00	64.14	5.11
16	37,326	640.00	62.21	4.60	10	75,804	1,347.00	126.34	9.34
17	17,251	136.00	28.75	2.13	10	35,214	880.00	58.69	5.10
24	17,206	113.00	28.68	2.12	15	42,852	1,071.00	71.42	.....
25	42,005	705.00	70.01	5.18	16	42,191	733.00	70.32	5.20
Feb. 3	42,124	711.00	70.21	5.19	20	37,271	679.00	62.12	4.59
4	34,673	583.00	57.79	4.27	23	36,323	535.00	56.04	4.14
17	80,572	1,440.00	134.29	9.93	24	84,586	1,489.00	140.98	10.42
21	33,829	646.00	56.38	4.17	27	39,070	661.00	65.12	4.81
Mar. 2	40,613	769.00	67.69	5.00	1	38,692	658.00	64.47	4.77
2	20,738	140.00	34.56	2.56	1	39,943	704.00	66.57	4.92
3	74,001	1,308.00	123.34	9.12	6	45,204	805.00	75.34	5.57
6	16,739	112.00	27.90	2.06	9	42,746	759.00	71.24	5.27
6	17,881	121.00	29.80	2.20	15	74,530	1,863.00	124.22	.....
12	16,839	112.00	28.07	2.07	18	72,940	1,824.00	121.57	21.36
17	37,290	593.00	62.15	4.59	19	67,078	1,677.00	111.80	3.43
21	38,612	654.00	64.35	4.76	20	33,048	826.00	55.08	.....
21	36,284	573.00	60.47	4.47	21	39,698	709.00	66.16	4.80
21	39,994	689.00	66.66	4.93	23	35,438	617.00	59.06	4.37
21	19,306	127.00	32.18	2.38	25	39,421	670.00	65.70	4.86
21	40,772	694.00	67.95	5.02	27	38,424	961.00	64.04	13.34
23	34,601	617.00	57.67	4.26	28	82,535	1,269.00	137.56	10.17
24	40,261	696.00	67.10	4.96					
25	33,785	615.00	56.31	4.16	Total	11,954,012	217,019.33	20,041.67	1,388.21
27	40,163	657.00	66.94	4.95					

PRINTING PAPER.

1907.	<i>Pounds.</i>				1907.	<i>Pounds.</i>			
Feb. 1	42,273	\$703.00	\$126.82	.....	Apr. 17	40,890	\$745.00	\$122.40	.....
15	26,000	578.00	108.00	.....	17	45,858	757.00	137.57	.....
Mar. 6	45,437	754.00	136.31	.....	18	44,952	742.00	134.83	.....
21	36,500	662.00	109.50	.....	18	48,300	881.00	144.90	.....
23	43,646	720.00	130.94	.....	19	133,300	2,433.00	399.80	.....
23	78,992	1,303.00	236.98	.....	20	123,600	2,255.00	370.80	.....
25	42,800	776.00	128.40	.....	20	30,669	506.00	92.01	.....
26	43,100	711.00	129.30	.....	20	34,790	574.00	104.37	.....
28	46,774	772.00	140.32	.....	22	39,400	719.00	118.20	.....
28	82,045	1,354.00	246.13	.....	23	39,837	738.00	119.51	.....
Apr. 1	35,948	593.00	107.84	.....	24	40,976	676.00	122.93	.....
1	78,076	1,288.00	234.23	.....	25	39,000	657.00	108.00	.....
1	47,875	790.00	143.63	.....	25	78,704	1,396.00	236.11	.....
1	99,300	1,801.00	297.90	.....	27	166,900	3,046.00	500.70	.....
3	41,700	756.00	125.10	.....	29	41,855	774.00	125.57	.....
3	38,419	634.00	115.26	.....	29	64,568	1,195.00	193.70	.....
4	32,000	344.00	96.00	.....	May 1	95,057	1,792.00	285.17	.....
4	47,453	783.00	142.36	.....	2	40,116	742.00	120.35	.....
9	53,739	887.00	161.22	.....	3	45,187	836.00	135.56	.....
10	45,091	744.00	135.27	.....	3	46,771	865.00	140.31	.....
11	89,741	1,481.00	269.22	.....	3	232,906	4,488.00	698.72	.....
12	32,439	535.00	97.32	.....	4	100,316	1,956.00	300.95	.....
12	30,477	503.00	91.43	.....	4	43,562	806.00	130.09	.....
12	47,480	783.00	142.44	.....	6	54,694	1,067.00	164.08	.....
15	45,000	761.00	135.00	.....	6	46,681	864.00	140.04	.....
16	42,000	767.00	126.00	.....	7	46,060	853.00	138.18	.....
16	76,932	1,269.00	230.79	.....	8	47,662	929.00	142.99	.....
16	44,040	727.00	132.12	.....	9	98,984	1,866.00	296.95	.....

PORT OF PLATTSBURG, N. Y.—Continued.

Ground wood pulp, chemical wood pulp, and printing paper imported from Canada into the District of Champlain, Port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

PRINTING PAPER—Continued.

Date of arrival.	Quantity.	Appraised value.	Duty.	Countervailing duty.	Date of arrival.	Quantity.	Appraised value.	Duty.	Countervailing duty.
1907.	Pounds.				1907.	Pounds.			
May 9	87,900	\$1,626.00	\$263.70		Dec. 13	41,477	\$767.00	\$124.43	
11	193,284	3,599.00	579.85		23	43,248	823.00	129.74	
13	99,028	1,931.00	297.08		26	44,042	837.00	132.13	
13	46,248	856.00	138.74		30	40,212	764.00	120.64	
13	45,992	851.00	137.98						
15	26,095	483.00	78.29		1908.				
16	46,800	866.00	140.40		Jan. 3	40,184	764.00	120.55	
16	80,124	1,442.00	240.37		3	44,800	858.00	134.40	30.54
16	43,700	686.00	131.10		8	14,918	507.00	29.84	
17	174,100	3,172.00	522.30		10	35,688	714.00	107.06	7.00
20	292,800	5,333.00	878.40		10	41,671	792.00	125.01	
21	236,695	4,438.00	710.08		10	36,800	644.00	110.40	7.84
22	33,056	612.00	99.17		13	37,976	722.00	113.93	
22	38,200	707.00	114.60		15	35,093	667.00	105.28	
23	284,938	5,285.00	854.81		17	89,000	1,704.00	267.00	18.96
24	64,448	1,192.00	193.34		18	80,000	1,532.00	240.00	17.04
25	185,600	2,422.00	406.80		20	39,300	753.00	117.90	8.37
27	85,689	1,643.00	257.07		22	73,100	1,400.00	219.30	15.57
27	37,603	603.00	97.81		24	45,569	847.00	133.71	
27	42,456	785.00	127.37		30	38,500	737.00	115.50	9.63
28	103,382	2,016.00	310.14		Feb. 1	43,594	828.00	130.78	
June 1	83,914	1,596.00	251.74		14	37,600	720.00	112.80	7.71
2	41,511	768.00	124.53		17	47,760	915.00	143.28	9.79
3	123,159	2,373.00	369.47		19	70,520	2,272.00	355.56	24.71
5	77,581	1,512.00	232.74		21	39,660	759.00	118.98	8.13
7	101,100	1,871.00	303.30		21	51,707	980.00	155.12	
8	95,500	1,766.00	286.50		26	34,366	653.00	103.10	
10	157,200	3,869.00	471.60		27	38,137	725.00	114.41	
11	143,500	2,619.00	430.50		27	44,000	792.00	132.00	9.02
12	53,500	976.00	160.50		Mar. 2	43,940	835.00	131.82	
17	39,000	694.00	117.00		6	44,561	847.00	133.68	
19	36,622	678.00	109.87		6	40,105	713.00	120.32	8.54
19	49,677	919.00	149.03		14	46,600	839.00	139.80	9.56
21	46,700	852.00	140.10		14	46,483	883.00	139.45	
22	150,900	2,653.00	452.70		14	37,897	726.00	113.69	
23	50,300	931.00	150.90		18	71,861	1,365.00	215.58	
24	48,266	893.00	144.80		18	37,843	681.00	113.53	7.76
25	47,987	888.00	143.93		19	47,374	800.00	142.12	
25	33,699	623.00	101.10		23	71,864	1,365.00	215.59	
25	30,037	556.00	90.11		26	34,237	651.00	102.71	
25	50,000	866.00	150.00		26	35,627	677.00	106.88	
26	101,400	1,850.00	304.20		27	41,324	785.00	123.97	
26	49,446	715.00	148.34		30	35,309	671.00	105.93	
26	48,018	888.00	144.05		30	35,152	668.00	105.46	
27	32,149	595.00	96.45		Apr. 1	71,327	1,355.00	213.98	
July 2	152,600	2,785.00	457.80		2	35,112	667.00	105.34	
11	132,419	2,364.00	397.26		6	70,768	1,345.00	212.30	
15	225,506	4,201.00	676.51		6	106,103	1,997.00	315.31	
17	46,836	865.00	140.51		8	35,021	665.00	105.06	
20	39,245	725.00	117.74		10	35,040	666.00	105.12	
26	42,115	777.00	126.35		11	35,670	698.00	107.01	
Aug. 5	46,361	858.00	139.08		11	46,398	882.00	139.19	
10	37,400	630.00	112.20		13	35,380	672.00	106.14	
17	42,753	791.00	128.26		16	42,142	801.00	126.43	
21	42,200	770.00	126.60		25	73,147	1,390.00	219.44	
26	50,400	796.00	151.20		29	46,732	888.00	140.20	
29	78,500	1,385.00	235.50		May 2	73,117	1,389.00	219.35	
Sept. 5	51,000	942.00	154.80	\$12.90	8	35,976	684.00	107.93	
14	33,139	613.00	99.42		11	73,722	1,401.00	221.17	
21	43,461	804.00	130.38		11	38,378	729.00	115.13	
23	42,800	856.00	128.40		14	42,575	809.00	127.75	
27	33,227	615.00	99.68		16	36,588	696.00	109.76	
Oct. 4	42,302	783.00	126.91		19	73,660	1,400.00	220.98	
7	36,478	675.00	109.43		21	50,781	965.00	152.34	
7	40,680	753.00	122.04		21	36,576	695.00	109.73	
7	31,163	577.00	93.49		21	36,208	688.00	108.62	
14	37,400	648.00	112.20	9.35	23	36,843	700.00	110.53	
26	64,500	1,129.00	193.50	16.13	23	83,388	1,534.00	250.16	
30	37,000	658.00	111.00	9.25	25	36,288	699.00	108.86	
Nov. 11	38,475	712.00	115.43		28	38,880	778.00	116.64	7.97
14	42,585	784.00	127.16		29	39,684	754.00	119.05	
19	40,000	658.00	120.00						
Dec. 9	51,135	946.00	153.41		Total..	12,186,480	224,333.00	36,528.93	235.36
9	47,511	879.00	142.53						

No importations during the period from January 1, 1907, to June 1, 1908, of filter masse or filter stock under paragraph 395 of the tariff act of 1897.

PORT OF PLATTSBURG, N. Y.—Continued.

Pulp woods imported from Canada into the district of Champlain, port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908.

[Entered free of duty.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1907.	<i>Cords.</i>		1907.	<i>Cords.</i>		1907.	<i>Cords.</i>	
Jan. 2.....	30	\$90.00	Jan. 12.....	12	\$66.00	Jan. 29.....	12	\$66.00
2.....	12	66.00	12.....	24	96.00	29.....	12	66.00
2.....	9	50.00	12.....	20	140.00	29.....	30	90.00
2.....	12	66.00	14.....	18	72.00	29.....	50	320.00
2.....	12	66.00	14.....	30	96.00	30.....	20	60.00
2.....	12	66.00	14.....	30	96.00	30.....	30	90.00
2.....	12	66.00	14.....	101	550.00	30.....	30	90.00
2.....	30	90.00	15.....	30	90.00	30.....	18	99.00
2.....	20	60.00	15.....	18	72.00	30.....	12	66.00
2.....	12	66.00	15.....	20	64.00	30.....	9	50.00
2.....	12	66.00	15.....	46	274.00	30.....	12	66.00
2.....	20	70.00	16.....	80	320.00	30.....	12	66.00
2.....	20	90.00	16.....	50	250.00	31.....	24	96.00
2.....	122	566.00	17.....	12	66.00	31.....	20	60.00
2.....	211	904.00	17.....	12	66.00	31.....	18	99.00
3.....	51	204.00	17.....	12	66.00	31.....	12	66.00
4.....	12	66.00	17.....	9	50.00	31.....	20	60.00
4.....	12	66.00	17.....	12	66.00	31.....	9	50.00
4.....	12	66.00	17.....	18	99.00	31.....	20	60.00
4.....	12	66.00	17.....	25	100.00	31.....	20	70.00
4.....	9	50.00	17.....	175	939.00	Feb. 1.....	23	92.00
4.....	11	61.90	18.....	20	80.00	1.....	12	66.00
4.....	24	96.00	19.....	20	80.00	1.....	12	66.00
4.....	30	90.00	21.....	30	90.00	1.....	12	66.00
5.....	12	66.00	21.....	20	60.00	1.....	11	61.00
5.....	9	80.00	21.....	20	60.00	1.....	12	66.00
5.....	20	60.00	21.....	12	66.00	1.....	12	66.00
5.....	20	60.00	21.....	11	61.00	1.....	12	66.00
5.....	22	77.00	21.....	12	66.00	1.....	12	66.00
7.....	18	90.00	21.....	12	66.00	1.....	20	60.00
7.....	30	90.00	21.....	12	66.00	1.....	24	96.00
7.....	20	60.00	21.....	12	66.00	1.....	16	64.00
7.....	12	66.00	21.....	18	99.00	1.....	24	96.00
7.....	30	90.00	21.....	20	60.00	1.....	23	92.00
7.....	162	642.00	21.....	20	80.00	1.....	335	1,263.00
8.....	20	80.00	21.....	111	464.00	1.....	30	90.00
8.....	27	81.00	22.....	20	80.00	1.....	20	60.00
8.....	18	99.00	22.....	20	80.00	2.....	40	160.00
8.....	12	66.00	22.....	20	80.00	4.....	12	66.00
8.....	12	66.00	23.....	30	90.00	4.....	12	66.00
8.....	12	66.00	23.....	30	90.00	4.....	12	66.00
8.....	10	52.00	23.....	30	90.00	4.....	11	61.00
8.....	12	66.00	23.....	27	81.00	4.....	9	50.00
8.....	12	66.00	23.....	30	90.00	4.....	12	66.00
8.....	18	99.00	23.....	20	60.00	4.....	30	90.00
8.....	180	880.00	23.....	24	72.00	4.....	9	50.00
9.....	20	60.00	23.....	20	60.00	4.....	30	90.00
9.....	12	66.00	23.....	72	368.00	4.....	30	90.00
9.....	10	55.00	24.....	12	66.00	4.....	30	90.00
9.....	10	55.00	24.....	16	64.00	4.....	30	90.00
9.....	10	55.00	24.....	30	96.00	4.....	30	90.00
9.....	20	60.00	24.....	16	64.00	4.....	30	90.00
9.....	20	70.00	24.....	20	70.00	4.....	30	90.00
9.....	40	160.00	28.....	30	90.00	4.....	20	60.00
10.....	20	60.00	28.....	20	60.00	4.....	15	63.00
10.....	30	90.00	28.....	20	60.00	4.....	20	65.00
10.....	212	1,018.00	28.....	11	61.00	4.....	10	40.00
11.....	9	50.00	28.....	12	66.00	4.....	177	789.00
11.....	12	66.00	28.....	12	66.00	5.....	20	60.00
11.....	12	66.00	28.....	12	66.00	5.....	20	60.00
11.....	35	140.00	28.....	12	66.00	5.....	20	65.00
12.....	30	90.00	28.....	40	160.00	5.....	16	65.00
12.....	20	80.00	28.....	201	988.00	5.....	24	96.00
12.....	20	60.00	29.....	20	60.00	5.....	139	890.00
12.....	30	90.00	29.....	30	90.00	6.....	30	90.00
12.....	12	66.00	29.....	20	60.00	6.....	20	70.00
12.....	12	66.00	29.....	20	60.00	6.....	20	60.00
12.....	12	66.00	29.....	20	60.00	6.....	30	90.00
12.....	12	66.00	29.....	20	60.00	6.....	20	60.00
12.....	10	52.00	29.....	9	50.00	6.....	30	90.00
12.....	12	66.00	29.....	12	66.00	6.....	12	66.00

PORT OF PLATTSBURG, N. Y.—Continued.

Pulp woods imported from Canada into the district of Champlain, port of Plattsburg, K. Y., during the period January 1, 1907, to June 1, 1908—Continued.

[Entered free of duty.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1907.	<i>Cords.</i>		1907.	<i>Cords.</i>		1907.	<i>Cords.</i>	
Feb. 6.....	12	\$56.00	Feb. 14.....	20	\$60.00	Feb. 25.....	15	\$83.00
6.....	9	50.00	14.....	12	48.00	25.....	12	66.00
6.....	12	66.00	15.....	20	80.00	25.....	12	66.00
6.....	30	170.00	15.....	30	90.00	25.....	27	81.00
7.....	13	52.00	15.....	20	80.00	25.....	30	96.00
7.....	26	97.00	15.....	30	90.00	25.....	20	64.00
8.....	20	60.00	15.....	20	60.00	25.....	9	50.00
8.....	12	66.00	15.....	33	99.00	25.....	12	66.00
8.....	18	90.00	15.....	29	87.00	25.....	12	66.00
8.....	24	96.00	15.....	20	70.00	25.....	12	66.00
8.....	30	90.00	15.....	30	90.00	25.....	10	40.00
8.....	20	70.00	15.....	24	96.00	25.....	126	532.00
8.....	30	90.00	15.....	20	80.00	26.....	30	90.00
8.....	12	66.00	15.....	18	72.00	26.....	20	90.00
8.....	12	66.00	16.....	20	60.00	26.....	30	90.00
8.....	22	88.00	16.....	20	80.00	26.....	30	90.00
9.....	60	200.00	16.....	18	72.00	26.....	9	50.00
11.....	12	66.00	16.....	20	60.00	26.....	12	66.00
11.....	30	90.00	16.....	20	60.00	26.....	12	66.00
11.....	20	60.00	16.....	20	60.00	26.....	12	66.00
11.....	20	60.00	16.....	20	60.00	26.....	12	66.00
11.....	30	90.00	16.....	22	88.00	26.....	72	282.00
11.....	30	96.00	18.....	20	80.00	26.....	9	50.00
11.....	30	90.00	18.....	30	90.00	26.....	20	65.00
11.....	31	90.00	18.....	16	64.00	26.....	12	48.00
11.....	20	65.00	18.....	30	90.00	26.....	80	330.00
11.....	9	50.00	18.....	9	50.00	28.....	30	90.00
11.....	11	61.00	18.....	12	66.00	28.....	12	66.00
11.....	12	66.00	18.....	30	90.00	28.....	12	66.00
11.....	12	66.00	18.....	20	60.00	28.....	12	66.00
11.....	9	50.00	18.....	30	90.00	28.....	12	66.00
11.....	12	66.00	18.....	30	90.00	28.....	12	66.00
11.....	12	66.00	18.....	18	90.00	28.....	12	66.00
11.....	10	54.00	18.....	22	88.00	28.....	11	61.00
11.....	12	66.00	18.....	88	352.00	28.....	13	72.00
11.....	12	66.00	18.....	153	661.00	28.....	12	66.00
11.....	10	55.00	19.....	30	90.00	Mar. 1.....	20	60.00
11.....	12	66.00	19.....	12	66.00	1.....	30	90.00
11.....	30	90.00	19.....	9	50.00	1.....	30	90.00
11.....	10	55.00	19.....	12	66.00	1.....	30	90.00
11.....	12	66.00	19.....	12	66.00	1.....	162	667.00
11.....	17	94.00	19.....	20	80.00	2.....	20	60.00
11.....	15	60.00	19.....	20	65.00	2.....	30	90.00
11.....	11	61.00	19.....	30	90.00	2.....	20	60.00
11.....	12	66.00	19.....	20	80.00	2.....	10	55.00
11.....	10	55.00	19.....	20	80.00	2.....	12	66.00
11.....	12	66.00	19.....	15	83.00	2.....	12	66.00
11.....	12	66.00	19.....	22	88.00	2.....	12	66.00
11.....	12	66.00	19.....	219	1,058.00	2.....	9	50.00
11.....	12	66.00	20.....	20	90.00	2.....	9	50.00
11.....	257	1,015.00	20.....	20	60.00	2.....	11	61.00
12.....	12	66.00	20.....	20	60.00	2.....	12	66.00
12.....	12	66.00	20.....	30	90.00	2.....	12	66.00
12.....	12	66.00	20.....	20	64.00	2.....	12	66.00
12.....	12	66.00	20.....	18	72.00	2.....	13	72.00
13.....	30	90.00	21.....	20	60.00	2.....	11	61.00
13.....	30	90.00	21.....	30	90.00	4.....	30	90.00
13.....	30	90.00	21.....	20	60.00	4.....	30	90.00
13.....	12	66.00	21.....	20	60.00	4.....	20	64.00
13.....	12	66.00	21.....	20	60.00	4.....	30	96.00
13.....	15	83.00	21.....	18	72.00	4.....	30	90.00
13.....	14	70.00	21.....	10	55.00	4.....	30	90.00
13.....	16	88.00	21.....	15	83.00	4.....	30	90.00
13.....	20	60.00	21.....	15	83.00	4.....	30	90.00
13.....	9	50.00	21.....	20	60.00	4.....	30	90.00
13.....	11	61.00	21.....	12	66.00	4.....	24	72.00
13.....	9	50.00	21.....	20	80.00	4.....	18	90.00
13.....	9	50.00	21.....	235	1,120.00	4.....	12	66.00
13.....	12	66.00	22.....	12	66.00	4.....	12	66.00
13.....	12	66.00	22.....	12	66.00	4.....	12	66.00
13.....	12	66.00	22.....	30	98.00	4.....	30	90.00
13.....	125	505.00	22.....	33	99.00	4.....	20	90.00
14.....	20	60.00	22.....	40	175.00	4.....	20	80.00
14.....	20	80.00	23.....	72	288.00	4.....	12	66.00
14.....	20	60.00	25.....	12	66.00	4.....	15	83.00

PORT OF PLATTSBURG, N. Y.—Continued.

Pulp woods imported from Canada into the district of Champlain, port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

[Entered free of duty.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1907.	<i>Cords.</i>		1907.	<i>Cords.</i>		1907.	<i>Cords.</i>	
Mar. 4.....	20	\$80.00	Mar. 13.....	12	\$66.00	Mar. 19.....	30	\$90.00
4.....	98	382.00	13.....	18	99.00	20.....	20	80.00
5.....	20	60.00	13.....	90	500.00	20.....	162	736.00
5.....	20	60.00	14.....	15	83.00	21.....	20	64.00
5.....	30	90.00	14.....	12	66.00	21.....	24	96.00
5.....	30	90.00	14.....	12	66.00	21.....	20	80.00
5.....	16	64.00	14.....	20	60.00	21.....	20	80.00
5.....	20	80.00	14.....	30	90.00	21.....	30	120.00
5.....	20	60.00	14.....	30	96.00	22.....	20	60.00
5.....	20	60.00	14.....	20	80.00	22.....	30	90.00
5.....	20	60.00	14.....	32	96.00	22.....	30	90.00
5.....	20	60.00	14.....	24	96.00	22.....	20	60.00
5.....	30	90.00	14.....	20	80.00	22.....	20	80.00
5.....	30	90.00	14.....	48	220.00	22.....	15	83.00
5.....	20	60.00	15.....	25	75.00	22.....	9	50.00
5.....	20	80.00	15.....	20	64.00	22.....	18	99.00
5.....	329	1,555.00	15.....	15	83.00	22.....	12	66.00
6.....	20	80.00	15.....	20	70.00	22.....	12	66.00
6.....	20	60.00	15.....	23	139.00	22.....	20	60.00
6.....	30	90.00	16.....	20	80.00	22.....	20	60.00
6.....	30	96.00	16.....	20	80.00	22.....	239	1,181.00
6.....	18	54.00	16.....	12	66.00	23.....	12	66.00
6.....	18	54.00	16.....	11	61.00	23.....	30	90.00
6.....	20	60.00	16.....	12	66.00	23.....	18	99.00
6.....	9	50.00	16.....	12	66.00	25.....	12	66.00
6.....	12	66.00	16.....	12	66.00	25.....	20	60.00
6.....	13	72.00	16.....	10	55.00	25.....	30	90.00
6.....	12	66.00	16.....	12	66.00	25.....	20	60.00
6.....	12	66.00	16.....	12	66.00	25.....	20	60.00
6.....	13	72.00	16.....	12	66.00	25.....	30	90.00
6.....	10	40.00	16.....	9	50.00	25.....	20	60.00
6.....	278	1,186.00	16.....	130	800.00	25.....	30	90.00
7.....	20	80.00	18.....	24	96.00	25.....	30	90.00
7.....	20	80.00	18.....	16	64.00	25.....	8	44.00
7.....	20	60.00	18.....	16	64.00	25.....	12	66.00
7.....	30	90.00	18.....	30	90.00	25.....	12	66.00
7.....	30	90.00	18.....	20	60.00	25.....	16	64.00
7.....	124	559.00	18.....	30	90.00	25.....	16	64.00
8.....	20	60.00	18.....	18	99.00	25.....	16	64.00
8.....	30	90.00	18.....	12	66.00	25.....	20	60.00
8.....	9	50.00	18.....	12	66.00	25.....	30	90.00
8.....	12	66.00	18.....	12	66.00	25.....	20	65.00
8.....	9	50.00	18.....	12	66.00	25.....	30	90.00
8.....	9	50.00	18.....	12	66.00	25.....	20	60.00
8.....	9	50.00	18.....	12	66.00	25.....	20	60.00
8.....	12	66.00	18.....	12	66.00	25.....	12	66.00
8.....	30	90.00	18.....	15	83.00	25.....	12	66.00
8.....	30	90.00	18.....	15	83.00	25.....	12	66.00
9.....	30	90.00	18.....	12	66.00	25.....	12	66.00
9.....	20	80.00	18.....	30	90.00	25.....	12	66.00
9.....	183	891.00	18.....	30	90.00	25.....	12	66.00
11.....	20	60.00	18.....	20	60.00	25.....	9	50.00
11.....	9	50.00	18.....	12	66.00	25.....	12	66.00
11.....	27	81.00	18.....	30	96.00	25.....	20	80.00
11.....	30	90.00	18.....	20	60.00	25.....	157	637.00
11.....	30	96.00	18.....	24	96.00	26.....	30	90.00
11.....	20	80.00	18.....	20	90.00	26.....	12	66.00
11.....	24	96.00	18.....	30	90.00	26.....	30	90.00
11.....	20	64.00	18.....	9	50.00	26.....	164	871.00
11.....	20	64.00	18.....	12	66.00	27.....	20	60.00
11.....	253	1,840.00	18.....	12	66.00	27.....	16	64.00
12.....	15	83.00	18.....	12	66.00	27.....	18	99.00
12.....	9	50.00	18.....	12	66.00	27.....	12	66.00
12.....	12	66.00	18.....	10	40.00	27.....	12	66.00
12.....	12	66.00	18.....	276	1,361.00	27.....	12	66.00
12.....	50	270.00	19.....	30	90.00	27.....	12	66.00
12.....	20	65.00	19.....	30	90.00	27.....	20	60.00
12.....	30	90.00	19.....	30	90.00	27.....	20	60.00
12.....	18	99.00	19.....	30	90.00	27.....	20	64.00
12.....	11	61.00	19.....	12	66.00	27.....	20	60.00
12.....	12	66.00	19.....	12	66.00	27.....	20	60.00
12.....	11	55.00	19.....	18	99.00	27.....	20	80.00
12.....	12	66.00	19.....	12	66.00	27.....	118	465.00
12.....	12	66.00	19.....	12	66.00	28.....	30	90.00
12.....	12	66.00	19.....	20	80.00	28.....	20	60.00
12.....	12	66.00	19.....	20	66.00	28.....	20	60.00

PORT OF PLATTSBURG, N. Y.—Continued.

Pulp woods imported from Canada into the district of Champlain, port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

[Entered free of duty.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1907.	<i>Cords.</i>		1907.	<i>Cords.</i>		1907.	<i>Cords.</i>	
Mar. 28.....	20	\$60.00	Apr. 8.....	16	\$64.00	Apr. 15.....	12	\$64.00
28.....	182	946.00	8.....	16	64.00	15.....	18	99.00
29.....	12	66.00	8.....	12	66.00	15.....	18	99.00
29.....	16	64.00	8.....	18	99.00	15.....	12	66.00
29.....	30	98.00	8.....	30	90.00	15.....	20	60.00
29.....	30	90.00	8.....	20	64.00	15.....	20	60.00
29.....	79	354.00	8.....	22	77.00	15.....	24	96.00
30.....	20	60.00	8.....	30	90.00	15.....	18	64.00
30.....	10	45.00	8.....	11	61.00	15.....	24	96.00
30.....	24	96.00	8.....	12	66.00	15.....	20	60.00
30.....	11	61.00	8.....	12	66.00	15.....	20	60.00
30.....	18	99.00	8.....	12	66.00	15.....	250	1,228.00
30.....	12	66.00	8.....	9	50.00	16.....	20	60.00
30.....	9	50.00	8.....	11	61.00	16.....	12	66.00
30.....	20	60.00	8.....	12	66.00	16.....	12	66.00
30.....	20	60.00	8.....	12	66.00	16.....	20	64.00
30.....	20	65.00	8.....	30	90.00	16.....	20	60.00
30.....	22	77.00	8.....	13	72.00	16.....	30	90.00
Apr. 1.....	8	32.00	8.....	13	72.00	16.....	9	50.00
1.....	20	65.00	8.....	12	66.00	16.....	18	99.00
1.....	20	60.00	8.....	12	66.00	16.....	13	72.00
1.....	12	66.00	8.....	14	77.00	16.....	12	66.00
1.....	30	90.00	8.....	30	90.00	16.....	12	66.00
1.....	20	60.00	8.....	16	64.00	16.....	100	480.00
1.....	30	90.00	8.....	30	98.00	17.....	12	66.00
1.....	20	60.00	8.....	24	96.00	17.....	20	70.00
1.....	20	60.00	8.....	10	40.00	17.....	20	60.00
1.....	30	90.00	8.....	328	1,173.00	17.....	30	90.00
1.....	12	66.00	9.....	20	60.00	17.....	20	60.00
1.....	9	50.00	9.....	12	66.00	17.....	10	40.00
1.....	20	60.00	9.....	12	66.00	17.....	114	514.00
1.....	20	60.00	9.....	11	61.00	18.....	20	60.00
1.....	20	60.00	9.....	12	66.00	18.....	20	60.00
1.....	10	30.00	9.....	12	66.00	18.....	13	72.00
1.....	20	60.00	9.....	12	66.00	18.....	12	66.00
1.....	20	65.00	9.....	20	60.00	18.....	13	66.00
1.....	20	60.00	9.....	20	60.00	18.....	30	90.00
1.....	20	60.00	9.....	16	64.00	18.....	20	60.00
1.....	10	30.00	9.....	30	90.00	18.....	20	60.00
1.....	16	64.00	9.....	20	60.00	18.....	9	50.00
1.....	24	96.00	9.....	20	60.00	18.....	20	60.00
1.....	30	90.00	9.....	20	60.00	18.....	30	90.00
1.....	24	96.00	9.....	20	60.00	18.....	30	96.00
1.....	30	90.00	11.....	9	50.00	18.....	30	90.00
1.....	20	60.00	11.....	12	66.00	18.....	16	64.00
1.....	20	70.00	11.....	13	72.00	18.....	20	60.00
1.....	20	80.00	11.....	20	60.00	18.....	112	522.00
1.....	200	1,283.00	11.....	30	90.00	19.....	20	60.00
2.....	12	66.00	11.....	30	90.00	19.....	44	156.00
2.....	12	66.00	11.....	20	64.00	20.....	30	90.00
2.....	12	66.00	11.....	20	60.00	20.....	16	64.00
2.....	12	66.00	11.....	20	65.00	20.....	16	64.00
2.....	12	66.00	11.....	20	65.00	20.....	20	60.00
2.....	8	44.00	11.....	30	90.00	20.....	20	60.00
2.....	12	66.00	11.....	20	65.00	20.....	20	64.00
2.....	30	90.00	11.....	8	32.00	20.....	20	64.00
2.....	30	90.00	11.....	152	618.00	20.....	20	60.00
3.....	30	90.00	12.....	30	90.00	20.....	12	66.00
3.....	24	96.00	12.....	30	90.00	20.....	12	66.00
3.....	20	60.00	12.....	18	99.00	20.....	12	66.00
3.....	16	64.00	12.....	12	66.00	20.....	20	60.00
3.....	20	60.00	12.....	12	66.00	20.....	13	72.00
4.....	30	90.00	12.....	20	80.00	20.....	12	66.00
4.....	20	60.00	12.....	20	60.00	20.....	12	66.00
4.....	30	90.00	12.....	77	401.00	20.....	9	50.00
4.....	20	60.00	13.....	30	90.00	20.....	13	60.00
4.....	208	1,353.00	15.....	20	60.00	20.....	30	90.00
5.....	10	30.00	15.....	10	40.00	20.....	20	60.00
5.....	30	90.00	15.....	20	60.00	20.....	12	66.00
5.....	9	50.00	15.....	20	80.00	20.....	12	66.00
5.....	30	90.00	15.....	10	30.00	20.....	9	60.00
5.....	20	60.00	15.....	12	66.00	22.....	20	60.00
5.....	20	70.00	15.....	12	66.00	22.....	8	32.00
6.....	30	90.00	15.....	14	77.00	22.....	24	96.00
6.....	29	87.00	15.....	12	66.00	22.....	24	96.00
6.....	30	90.00	15.....	12	66.00	22.....	30	90.00

PORT OF PLATTSBURG, N. Y.—Continued.

Pulp woods imported from Canada into the district of Champlain, port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

[Entered free of duty.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1907.	<i>Cords.</i>		1907.	<i>Cords.</i>		1907.	<i>Cords.</i>	
Apr. 22.....	12	\$66.00	Apr. 30.....	20	\$60.00	May 11.....	20	\$70.00
22.....	12	66.00	30.....	20	60.00	11.....	20	60.00
22.....	13	72.00	30.....	20	80.00	11.....	20	64.00
22.....	14	77.00	30.....	30	90.00	11.....	12	66.00
22.....	8	44.00	30.....	9	50.00	11.....	12	66.00
22.....	12	66.00	30.....	20	80.00	11.....	12	66.00
22.....	9	50.00	30.....	24	98.00	13.....	20	60.00
22.....	30	98.00	May 1.....	20	60.00	13.....	20	60.00
22.....	20	60.00	1.....	20	60.00	13.....	30	90.00
22.....	20	60.00	1.....	20	60.00	13.....	30	90.00
22.....	10	60.00	1.....	20	60.00	13.....	30	90.00
22.....	24	96.00	1.....	20	60.00	13.....	10	55.00
22.....	16	64.00	1.....	20	70.00	13.....	20	80.00
22.....	326	1,442.00	1.....	20	60.00	13.....	30	90.00
23.....	20	60.00	1.....	30	90.00	13.....	20	60.00
23.....	20	60.00	1.....	93	346.00	13.....	20	60.00
23.....	12	66.00	2.....	30	90.00	13.....	20	80.00
23.....	12	66.00	2.....	86	344.00	13.....	24	96.00
23.....	13	72.00	3.....	30	98.00	13.....	10	40.00
23.....	12	66.00	3.....	20	65.00	13.....	30	98.00
23.....	9	50.00	3.....	20	60.00	13.....	30	90.00
23.....	24	96.00	3.....	20	60.00	13.....	30	90.00
24.....	16	64.00	3.....	24	72.00	13.....	20	64.00
24.....	8	32.00	3.....	12	66.00	13.....	20	60.00
24.....	20	60.00	3.....	13	72.00	13.....	20	80.00
24.....	20	65.00	3.....	18	99.00	13.....	173	702.00
24.....	20	60.00	3.....	18	99.00	14.....	66	274.00
24.....	20	60.00	3.....	12	66.00	15.....	28	84.00
24.....	30	90.00	3.....	12	66.00	15.....	30	90.00
24.....	18	62.00	4.....	20	60.00	15.....	20	70.00
25.....	30	90.00	4.....	20	60.00	15.....	30	90.00
25.....	10	45.00	4.....	20	80.00	15.....	20	60.00
25.....	12	66.00	4.....	16	64.00	16.....	30	98.00
25.....	12	66.00	6.....	20	70.00	16.....	30	90.00
25.....	12	66.00	6.....	30	90.00	16.....	30	90.00
25.....	12	66.00	6.....	30	90.00	16.....	40	160.00
25.....	12	66.00	6.....	30	90.00	17.....	20	60.00
25.....	91	359.00	6.....	30	90.00	17.....	12	66.00
26.....	20	60.00	6.....	20	60.00	17.....	12	66.00
26.....	30	90.00	6.....	30	98.00	17.....	12	66.00
26.....	24	96.00	6.....	24	96.00	17.....	12	66.00
26.....	20	60.00	6.....	12	66.00	17.....	12	66.00
26.....	13	72.00	6.....	20	60.00	17.....	30	120.00
26.....	17	94.00	6.....	30	90.00	18.....	10	60.00
26.....	14	77.00	6.....	30	96.00	18.....	20	100.00
26.....	20	80.00	6.....	16	64.00	18.....	16	64.00
26.....	30	90.00	6.....	16	64.00	18.....	20	60.00
26.....	30	90.00	6.....	216	807.00	18.....	20	64.00
26.....	72	239.00	7.....	20	70.00	18.....	30	90.00
27.....	30	90.00	7.....	10	45.00	18.....	22	66.00
27.....	30	90.00	7.....	20	60.00	18.....	12	66.00
27.....	10	40.00	7.....	20	64.00	18.....	13	72.00
29.....	10	45.00	7.....	24	96.00	18.....	14	77.00
29.....	20	60.00	7.....	12	66.00	18.....	13	72.00
29.....	12	66.00	7.....	12	66.00	18.....	11	61.00
29.....	12	66.00	7.....	12	66.00	18.....	20	60.00
29.....	20	80.00	7.....	12	66.00	20.....	134	724.00
29.....	20	60.00	7.....	12	66.00	20.....	105	499.00
29.....	20	60.00	7.....	30	90.00	20.....	117	556.00
29.....	14	77.00	7.....	30	90.00	20.....	121	606.00
29.....	9	50.00	7.....	30	90.00	20.....	121	607.00
29.....	12	66.00	8.....	20	65.00	20.....	30	90.00
29.....	30	90.00	8.....	24	96.00	20.....	20	60.00
29.....	13	72.00	8.....	16	64.00	20.....	13	70.00
29.....	24	96.00	8.....	16	64.00	20.....	30	90.00
29.....	24	96.00	8.....	16	64.00	20.....	8	32.00
29.....	30	90.00	8.....	20	60.00	20.....	20	60.00
29.....	20	80.00	8.....	20	60.00	20.....	30	90.00
29.....	20	80.00	8.....	20	65.00	20.....	20	64.00
29.....	20	80.00	9.....	98	342.00	20.....	30	90.00
29.....	168	535.00	10.....	20	64.00	20.....	30	90.00
30.....	20	80.00	10.....	20	60.00	20.....	20	70.00
30.....	16	64.00	10.....	20	60.00	20.....	8	44.00
30.....	24	96.00	10.....	30	90.00	20.....	12	66.00
30.....	30	96.00	10.....	39	87.00	20.....	10	55.00
30.....	20	60.00	11.....	20	60.00	20.....	12	66.00

PORT OF PLATTSBURG, N. Y.—Continued.

Pulp woods imported from Canada into the district of Champlain, port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

[Entered free of duty.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1907.	<i>Cords.</i>		1907.	<i>Cords.</i>		1907.	<i>Cords.</i>	
May 20.....	20	\$60.00	May 27.....	20	\$60.00	June 3.....	367	\$1,721.08
20.....	30	90.00	27.....	286	1,030.00	4.....	179	720.00
20.....	305	1,120.00	28.....	120	629.00	4.....	34	126.00
21.....	137	589.00	28.....	118	637.00	5.....	90	518.00
22.....	145	498.00	28.....	84	336.00	5.....	86	518.00
22.....	8	32.00	28.....	85	340.00	5.....	110	548.00
22.....	10	55.00	28.....	145	783.00	5.....	116	581.00
22.....	30	96.00	28.....	124	609.00	5.....	112	559.00
22.....	30	98.00	28.....	100	600.00	5.....	84	505.00
22.....	29	87.00	28.....	100	600.00	5.....	116	581.00
22.....	20	80.00	28.....	104	519.00	5.....	82	492.00
22.....	24	96.00	28.....	30	90.00	5.....	80	480.00
22.....	16	64.00	28.....	20	80.00	5.....	123	738.00
22.....	20	60.00	28.....	14	77.00	5.....	108	648.00
22.....	20	60.00	28.....	9	50.00	5.....	101	504.00
22.....	20	60.00	28.....	12	66.00	5.....	120	600.00
22.....	20	60.00	28.....	12	66.00	5.....	30	90.00
23.....	100	600.00	28.....	12	66.00	5.....	30	90.00
23.....	100	600.00	28.....	12	66.00	5.....	20	80.00
23.....	111	666.00	28.....	364	1,277.00	6.....	161	576.00
23.....	110	660.00	29.....	144	488.00	6.....	20	60.00
23.....	84	487.00	29.....	20	80.00	6.....	30	90.00
23.....	81	493.00	30.....	101	455.00	6.....	20	60.00
23.....	85	493.00	30.....	118	590.00	6.....	30	90.00
23.....	121	606.00	30.....	125	625.00	7.....	118	590.00
23.....	126	684.00	30.....	132	660.00	7.....	113	565.00
23.....	118	561.00	30.....	125	625.00	7.....	30	90.00
23.....	98	392.00	30.....	97	484.00	7.....	25	75.00
23.....	67	268.00	30.....	120	597.00	7.....	28	84.00
24.....	20	70.00	30.....	118	591.00	7.....	20	60.00
24.....	30	90.00	30.....	126	630.00	7.....	121	411.00
24.....	30	90.00	30.....	118	708.00	8.....	30	90.00
24.....	20	60.00	30.....	105	630.00	8.....	9	50.00
24.....	20	65.00	30.....	100	600.00	8.....	10	52.00
24.....	162	682.00	30.....	80	480.00	10.....	118	590.00
25.....	123	615.00	30.....	10	30.00	10.....	120	600.00
25.....	120	602.00	30.....	16	64.00	10.....	124	620.00
25.....	121	606.00	30.....	20	100.00	10.....	112	559.00
25.....	125	675.00	30.....	20	64.00	10.....	98	593.00
25.....	90	360.00	30.....	20	64.00	10.....	30	90.00
25.....	84	336.00	30.....	30	90.00	10.....	12	66.00
25.....	82	332.00	30.....	20	60.00	10.....	12	66.00
25.....	80	320.00	31.....	30	90.00	10.....	10	40.00
25.....	123	615.00	31.....	30	90.00	10.....	10	30.00
25.....	118	590.00	31.....	30	90.00	10.....	20	60.00
25.....	118	590.00	31.....	194	686.00	10.....	24	72.00
25.....	122	610.00	June 1.....	20	80.00	10.....	30	90.00
25.....	20	60.00	1.....	20	60.00	10.....	20	60.00
25.....	20	60.00	1.....	16	64.00	10.....	30	90.00
25.....	24	96.00	1.....	20	60.00	10.....	24	96.00
25.....	20	64.00	1.....	20	60.00	10.....	16	64.00
25.....	20	64.00	1.....	12	66.00	10.....	9	50.00
25.....	20	64.00	1.....	13	72.00	10.....	12	66.00
25.....	20	64.00	1.....	12	66.00	10.....	16	64.00
25.....	20	75.00	1.....	290	1,140.00	10.....	80	90.00
25.....	16	64.00	2.....	10	30.00	10.....	80	90.00
25.....	20	60.00	2.....	20	70.00	10.....	12	66.00
25.....	20	60.00	2.....	20	60.00	10.....	12	66.00
25.....	10	45.00	2.....	20	60.00	10.....	10	40.00
27.....	8	32.00	2.....	12	66.00	10.....	512	2,267.08
27.....	20	60.00	2.....	9	50.00	11.....	102	492.00
27.....	30	90.00	2.....	12	66.00	11.....	30	90.00
27.....	30	90.00	2.....	126	756.00	11.....	30	90.00
27.....	30	90.00	2.....	84	504.00	12.....	129	774.00
27.....	12	66.00	2.....	100	500.00	12.....	130	780.00
27.....	20	60.00	2.....	100	501.00	12.....	134	804.00
27.....	20	60.00	2.....	115	575.00	12.....	114	684.00
27.....	30	98.00	2.....	124	620.00	12.....	115	690.00
27.....	30	90.00	2.....	118	590.00	12.....	108	648.00
27.....	30	90.00	2.....	30	90.00	12.....	216	797.00
27.....	30	98.00	2.....	10	30.00	13.....	98	384.00
27.....	16	64.00	2.....	20	60.00	13.....	12	48.00
27.....	24	96.00	2.....	30	90.00	14.....	113	415.00
27.....	30	90.00	2.....	20	60.00	14.....	16	64.00
27.....	30	90.00	2.....	20	60.00	14.....	20	60.00

PORT OF PLATTSBURG, N. Y.—Continued.

Pulp woods imported from Canada into the district of Champlain, port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

[Entered free of duty.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1907.	<i>Cords.</i>		1907.	<i>Cords.</i>		1907.	<i>Cords.</i>	
June 14.....	30	\$80.00	June 21.....	133	\$532.00	June 27.....	30	\$80.00
14.....	30	90.00	21.....	133	532.00	27.....	20	90.00
14.....	12	66.00	21.....	107	746.00	28.....	12	66.00
14.....	12	66.00	21.....	100	700.00	29.....	20	90.00
14.....	9	50.00	21.....	112	784.00	29.....	20	90.00
15.....	122	610.00	21.....	113	791.00	29.....	120	600.00
15.....	114	570.00	21.....	108	756.00	29.....	120	600.00
15.....	110	551.00	21.....	90	90.00	29.....	125	625.00
15.....	120	602.00	22.....	20	70.00	29.....	129	645.00
15.....	107	535.00	22.....	20	60.00	July 1.....	111	555.00
15.....	81	324.00	22.....	90	90.00	1.....	111	555.00
15.....	80	320.00	22.....	12	66.00	1.....	82	328.00
15.....	105	525.00	23.....	20	60.00	1.....	83	332.00
15.....	104	521.00	23.....	24	96.00	1.....	73	292.00
15.....	118	590.00	24.....	10	30.00	1.....	77	292.00
15.....	127	635.00	24.....	12	66.00	1.....	111	508.00
15.....	130	650.00	24.....	9	60.00	1.....	112	553.00
15.....	30	70.00	24.....	20	60.00	1.....	117	468.00
15.....	30	96.00	24.....	102	508.00	1.....	106	424.00
15.....	30	90.00	24.....	103	514.00	1.....	111	444.00
15.....	30	90.00	24.....	140	560.00	1.....	107	428.00
17.....	10	40.00	24.....	127	508.00	1.....	108	432.00
17.....	20	60.00	24.....	131	524.00	1.....	95	380.00
17.....	30	90.00	24.....	93	372.00	1.....	90	360.00
17.....	20	60.00	24.....	85	340.00	1.....	121	847.00
17.....	30	90.00	24.....	127	534.00	1.....	100	700.00
17.....	30	90.00	24.....	125	630.00	1.....	109	763.00
17.....	30	90.00	24.....	10	30.00	1.....	115	805.00
17.....	20	70.00	24.....	20	60.00	1.....	112	784.00
17.....	276	1,245.00	24.....	20	70.00	1.....	108	756.00
18.....	167	645.00	24.....	12	66.00	1.....	117	819.00
18.....	20	60.00	24.....	12	66.00	1.....	108	756.00
18.....	20	60.00	24.....	9	60.00	1.....	110	770.00
19.....	114	798.00	24.....	20	80.00	1.....	10	30.00
19.....	94	376.00	24.....	149	652.00	1.....	30	90.00
19.....	92	368.00	25.....	130	616.00	1.....	401	1,663.00
19.....	88	352.00	25.....	20	100.00	2.....	72	318.00
19.....	105	527.00	25.....	131	917.00	2.....	20	60.00
19.....	114	570.00	25.....	131	917.00	2.....	30	90.00
19.....	118	591.00	25.....	127	889.00	2.....	30	90.00
19.....	127	634.00	25.....	125	875.00	2.....	10	45.00
19.....	123	861.00	25.....	103	721.00	2.....	100	400.00
19.....	117	819.00	25.....	126	504.00	2.....	105	420.00
19.....	117	819.00	25.....	125	500.00	2.....	111	444.00
19.....	122	554.00	25.....	119	478.00	2.....	100	400.00
19.....	111	377.00	25.....	117	468.00	2.....	104	418.00
19.....	130	840.00	25.....	156	1,092.00	2.....	104	418.00
19.....	20	70.00	25.....	126	882.00	2.....	104	418.00
19.....	20	90.00	25.....	106	424.00	2.....	75	300.00
19.....	30	90.00	25.....	120	490.00	2.....	78	312.00
19.....	30	90.00	26.....	10	30.00	2.....	78	304.00
19.....	34	136.00	26.....	30	90.00	2.....	74	296.00
20.....	120	600.00	26.....	107	428.00	2.....	81	324.00
20.....	125	625.00	26.....	132	528.00	2.....	77	308.00
20.....	146	730.00	26.....	123	492.00	2.....	76	304.00
20.....	10	30.00	26.....	126	504.00	2.....	83	332.00
20.....	30	90.00	26.....	123	492.00	3.....	30	90.00
20.....	20	60.00	26.....	103	412.00	3.....	20	70.00
20.....	20	60.00	26.....	114	456.00	3.....	20	70.00
20.....	138	638.00	26.....	115	460.00	3.....	82	433.00
21.....	150	550.00	26.....	128	896.00	4.....	106	539.00
21.....	104	423.00	26.....	128	896.00	4.....	120	599.00
21.....	108	541.00	26.....	129	903.00	4.....	114	798.00
21.....	92	368.00	26.....	122	854.00	4.....	101	404.00
21.....	86	344.00	26.....	112	784.00	4.....	92	368.00
21.....	88	352.00	26.....	103	721.00	4.....	120	840.00
21.....	92	368.00	26.....	131	653.00	4.....	128	884.00
21.....	89	356.00	26.....	125	627.00	4.....	131	917.00
21.....	111	554.00	26.....	115	574.00	4.....	122	854.00
21.....	117	586.00	26.....	122	608.00	4.....	118	585.00
21.....	101	707.00	26.....	81	324.00	4.....	121	608.00
21.....	109	436.00	26.....	78	312.00	4.....	71	284.00
21.....	110	440.00	26.....	125	530.00	4.....	87	248.00
21.....	110	440.00	27.....	12	66.00	4.....	69	276.00
21.....	120	480.00	27.....	12	66.00	4.....	12	66.00

PORT OF PLATTSBURG, N. Y.—Continued.

Pulp woods imported from Canada into the district of Champlain, port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

[Entered free of duty.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1907.	<i>Cords.</i>		1907.	<i>Cords.</i>		1907.	<i>Cords.</i>	
July 4.....	20	\$60.00	July 12.....	126	\$756.00	July 19.....	124	\$620.00
4.....	118	590.00	12.....	102	408.00	19.....	112	784.00
4.....	120	600.00	12.....	93	372.00	19.....	111	777.00
5.....	16	64.00	12.....	110	640.00	19.....	110	715.00
5.....	181	839.00	12.....	109	653.00	19.....	132	858.00
6.....	192	1,003.00	12.....	74	370.00	19.....	111	555.00
8.....	243	1,159.00	12.....	68	340.00	19.....	113	563.00
8.....	12	66.00	12.....	67	335.00	19.....	106	529.00
8.....	18	99.00	12.....	70	350.00	19.....	115	574.00
8.....	30	90.00	12.....	72	360.00	19.....	20	60.00
8.....	20	60.00	12.....	63	315.00	19.....	30	90.00
8.....	12	66.00	12.....	71	355.00	19.....	30	90.00
8.....	18	99.00	12.....	69	345.00	19.....	12	66.00
8.....	30	90.00	12.....	75	375.00	19.....	12	66.00
8.....	111	444.00	12.....	113	563.00	19.....	18	99.00
8.....	116	464.00	12.....	117	585.00	19.....	18	99.00
8.....	113	452.00	13.....	10	45.00	20.....	12	66.00
8.....	119	476.00	13.....	20	65.00	20.....	12	66.00
8.....	119	476.00	13.....	160	844.00	22.....	112	728.00
8.....	105	420.00	15.....	30	90.00	22.....	127	828.00
8.....	107	424.00	15.....	20	60.00	22.....	109	709.00
8.....	102	408.00	15.....	20	60.00	22.....	112	728.00
8.....	124	622.00	15.....	132	660.00	22.....	104	676.00
8.....	110	551.00	15.....	98	491.00	22.....	109	709.00
8.....	112	560.00	15.....	68	340.00	22.....	127	826.00
8.....	112	672.00	15.....	69	345.00	22.....	122	793.00
8.....	97	448.00	15.....	78	390.00	22.....	124	806.00
8.....	96	304.00	15.....	72	360.00	22.....	111	722.00
8.....	78	312.00	15.....	77	385.00	22.....	85	425.00
8.....	75	300.00	15.....	75	375.00	22.....	77	385.00
8.....	120	840.00	15.....	120	480.00	22.....	81	405.00
8.....	30	90.00	15.....	92	368.00	22.....	72	365.00
9.....	126	625.00	15.....	110	440.00	22.....	74	370.00
9.....	120	600.00	15.....	120	480.00	22.....	74	370.00
9.....	122	610.00	15.....	123	492.00	22.....	82	410.00
9.....	101	404.00	15.....	127	762.00	22.....	71	355.00
9.....	109	436.00	15.....	130	780.00	22.....	83	415.00
9.....	113	452.00	15.....	111	444.00	22.....	66	330.00
9.....	111	444.00	15.....	120	480.00	22.....	121	608.00
9.....	125	500.00	15.....	119	774.00	22.....	115	574.00
9.....	117	468.00	15.....	124	806.00	22.....	30	90.00
9.....	114	456.00	15.....	113	735.00	22.....	30	90.00
9.....	105	420.00	15.....	116	754.00	22.....	30	60.00
9.....	126	630.00	15.....	30	90.00	22.....	20	60.00
9.....	113	563.00	15.....	20	60.00	22.....	20	60.00
9.....	75	375.00	15.....	12	66.00	22.....	30	90.00
9.....	75	375.00	15.....	12	66.00	22.....	20	65.00
9.....	75	375.00	15.....	9	50.00	22.....	20	60.00
9.....	70	375.00	15.....	128	542.00	22.....	30	90.00
9.....	82	410.00	16.....	164	926.00	22.....	83	439.00
9.....	85	410.00	16.....	12	66.00	22.....	91	475.00
9.....	30	90.00	17.....	85	447.00	22.....	83	431.00
9.....	30	98.00	17.....	91	481.00	22.....	140	700.00
9.....	30	90.00	17.....	82	426.00	22.....	403	1,809.00
9.....	60	220.00	17.....	10	64.00	23.....	30	90.00
9.....	218	1,015.00	17.....	30	90.00	23.....	20	60.00
11.....	36	144.00	17.....	30	90.00	23.....	328	1,553.00
12.....	20	92.00	17.....	30	90.00	24.....	8	32.00
12.....	232	1,246.00	17.....	20	65.00	24.....	30	90.00
12.....	10	40.00	17.....	16	64.00	25.....	116	754.00
12.....	20	60.00	17.....	116	754.00	25.....	126	819.00
12.....	118	590.00	17.....	103	670.00	25.....	117	761.00
12.....	118	590.00	17.....	74	370.00	25.....	116	754.00
12.....	129	645.00	17.....	80	400.00	25.....	119	773.00
12.....	121	605.00	17.....	104	649.00	25.....	114	741.00
12.....	126	630.00	17.....	95	491.00	25.....	107	696.00
12.....	115	575.00	17.....	77	459.00	25.....	117	761.00
12.....	119	595.00	17.....	83	507.00	25.....	118	767.00
12.....	119	595.00	17.....	10	55.00	25.....	129	903.00
12.....	107	536.00	18.....	30	90.00	25.....	131	917.00
12.....	107	532.00	18.....	30	90.00	25.....	127	899.00
12.....	107	533.00	18.....	30	90.00	25.....	77	285.00
12.....	104	520.00	18.....	27	81.00	25.....	115	674.00
12.....	120	720.00	18.....	20	60.00	25.....	155	675.00
12.....	107	642.00	18.....	207	1,018.00	25.....	119	596.00
12.....	132	792.00	20.....	85	446.00	26.....	120	600.00

PORT OF PLATTSBURG, N. Y.—Continued.

Pulp woods imported from Canada into the district of Champlain, port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

[Entered free of duty.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1907.	<i>Cords.</i>		1907.	<i>Cords.</i>		1907.	<i>Cords.</i>	
July 25.....	115	\$675.00	Aug. 1.....	10	\$30.00	Aug. 6.....	68	\$340.00
25.....	10	40.00	1.....	20	60.00	6.....	73	365.00
25.....	20	60.00	1.....	9	50.00	6.....	74	370.00
25.....	20	90.00	1.....	107	695.00	6.....	74	370.00
25.....	30	90.00	1.....	127	826.00	6.....	71	355.00
25.....	30	90.00	1.....	111	722.00	6.....	70	350.00
25.....	18	99.00	1.....	117	761.00	6.....	71	355.00
25.....	18	99.00	1.....	113	735.00	6.....	80	400.00
25.....	20	60.00	1.....	117	761.00	6.....	20	60.00
25.....	12	66.00	1.....	119	774.00	7.....	16	88.00
25.....	12	66.00	1.....	109	709.00	8.....	82	460.00
25.....	131	653.00	1.....	121	847.00	8.....	128	640.00
26.....	136	669.00	1.....	121	847.00	8.....	116	574.00
26.....	20	80.00	1.....	74	370.00	8.....	112	563.00
26.....	24	72.00	1.....	71	355.00	8.....	115	748.00
26.....	20	60.00	1.....	72	360.00	8.....	98	637.00
26.....	20	60.00	1.....	93	495.00	8.....	106	683.00
26.....	30	90.00	2.....	143	926.00	8.....	111	722.00
27.....	107	592.00	2.....	20	60.00	8.....	112	728.00
29.....	198	1,072.00	2.....	30	90.00	8.....	114	741.00
29.....	98	488.00	2.....	30	90.00	8.....	20	60.00
29.....	91	455.00	3.....	122	793.00	8.....	151	859.00
29.....	130	650.00	3.....	107	696.00	9.....	157	974.00
29.....	99	644.00	3.....	119	774.00	9.....	12	66.00
29.....	112	724.00	3.....	106	689.00	9.....	20	60.00
29.....	104	676.00	3.....	111	722.00	9.....	24	72.00
29.....	100	650.00	3.....	96	624.00	10.....	20	60.00
29.....	115	748.00	3.....	90	630.00	12.....	80	440.00
29.....	103	670.00	3.....	111	777.00	12.....	60	270.00
29.....	104	676.00	3.....	118	826.00	12.....	60	270.00
29.....	113	735.00	3.....	105	525.00	12.....	116	580.00
29.....	131	653.00	3.....	119	595.00	12.....	119	596.00
29.....	131	653.00	3.....	68	340.00	12.....	121	605.00
29.....	71	355.00	3.....	75	375.00	12.....	103	515.00
29.....	81	405.00	3.....	74	370.00	12.....	101	505.00
29.....	70	350.00	3.....	72	360.00	12.....	96	485.00
29.....	69	345.00	3.....	75	375.00	12.....	99	495.00
29.....	72	370.00	3.....	70	350.00	12.....	78	390.00
29.....	74	370.00	3.....	70	350.00	12.....	77	385.00
29.....	75	375.00	3.....	72	360.00	12.....	76	380.00
29.....	72	365.00	3.....	77	385.00	12.....	115	574.00
29.....	76	380.00	3.....	73	365.00	12.....	103	513.00
29.....	76	380.00	3.....	73	365.00	12.....	78	390.00
29.....	20	60.00	3.....	110	551.00	12.....	75	375.00
29.....	70	350.00	3.....	30	90.00	12.....	118	767.00
29.....	73	365.00	3.....	30	90.00	12.....	127	826.00
29.....	69	345.00	3.....	9	50.00	12.....	104	676.00
29.....	71	355.00	3.....	10	34.00	12.....	114	741.00
29.....	73	365.00	3.....	115	565.00	12.....	132	858.00
29.....	76	380.00	5.....	118	600.00	12.....	141	787.00
29.....	80	400.00	5.....	126	630.00	12.....	117	819.00
29.....	109	709.00	5.....	86	538.00	12.....	114	798.00
29.....	110	715.00	5.....	90	556.00	12.....	125	875.00
29.....	92	715.00	5.....	20	60.00	12.....	122	854.00
29.....	109	709.00	5.....	30	90.00	12.....	97	679.00
29.....	35	175.00	5.....	10	35.00	12.....	20	60.00
29.....	117	585.00	5.....	30	90.00	12.....	398	2,810.00
29.....	119	595.00	5.....	20	60.00	13.....	80	135.00
29.....	115	575.00	5.....	30	90.00	13.....	10	30.00
29.....	20	60.00	5.....	30	90.00	13.....	20	60.00
29.....	20	60.00	5.....	30	90.00	13.....	43	256.00
29.....	20	60.00	5.....	167	91.00	14.....	125	813.00
29.....	30	90.00	6.....	261	1,497.00	14.....	109	709.00
29.....	10	55.00	6.....	126	819.00	14.....	169	1,099.00
29.....	16	64.00	6.....	116	754.00	14.....	178	1,157.00
29.....	12	66.00	6.....	110	715.00	14.....	126	882.00
30.....	30	90.00	6.....	116	754.00	14.....	122	854.00
30.....	20	68.00	6.....	111	722.00	14.....	77	385.00
30.....	20	60.00	6.....	121	767.00	14.....	72	360.00
30.....	8	32.00	6.....	117	819.00	14.....	82	355.00
31.....	20	70.00	6.....	124	619.00	14.....	80	410.00
31.....	20	60.00	6.....	85	425.00	14.....	80	400.00
31.....	20	80.00	6.....	87	435.00	15.....	164	820.00
							22	66.00

PORT OF PLATTSBURG, N. Y.—Continued.

Pulp woods imported from Canada into the district of Champlain, port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

[Entered free of duty.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1907.	<i>Cords.</i>		1907.	<i>Cords.</i>		1907.	<i>Cords.</i>	
Aug. 15.....	106	\$682.00	Aug. 21.....	72	\$365.00	Aug. 26.....	73	\$365.00
15.....	109	709.00	21.....	80	400.00	26.....	71	355.00
15.....	113	735.00	21.....	71	355.00	26.....	77	385.00
15.....	113	735.00	21.....	83	415.00	26.....	74	370.00
15.....	137	959.00	21.....	88	415.00	26.....	68	340.00
15.....	144	1,008.00	21.....	75	375.00	26.....	66	330.00
15.....	135	945.00	21.....	75	375.00	26.....	71	355.00
15.....	129	839.00	21.....	132	858.00	26.....	76	375.00
15.....	124	806.00	21.....	128	832.00	26.....	70	350.00
15.....	75	375.00	21.....	96	624.00	26.....	77	385.00
15.....	73	365.00	21.....	104	676.00	26.....	90	555.00
15.....	72	360.00	21.....	118	767.00	26.....	95	585.00
15.....	76	380.00	21.....	124	806.00	26.....	68	340.00
15.....	71	355.00	21.....	124	806.00	26.....	77	385.00
15.....	84	495.00	21.....	80	400.00	26.....	100	660.00
15.....	99	604.00	21.....	78	390.00	26.....	102	663.00
15.....	98	596.00	21.....	75	375.00	26.....	121	787.00
15.....	98	528.00	21.....	77	385.00	26.....	114	741.00
15.....	135	675.00	21.....	78	390.00	26.....	119	774.00
15.....	117	644.00	21.....	71	355.00	26.....	131	852.00
15.....	90	495.00	21.....	80	400.00	26.....	113	728.00
16.....	12	66.00	21.....	76	390.00	26.....	111	555.00
16.....	12	66.00	21.....	74	370.00	26.....	104	520.00
16.....	207	1,090.00	21.....	76	380.00	26.....	20	60.00
17.....	20	60.00	21.....	75	375.00	26.....	12	66.00
17.....	20	60.00	21.....	75	375.00	26.....	12	66.00
17.....	112	676.00	21.....	227	1,289.00	26.....	30	90.00
19.....	75	375.00	22.....	10	55.00	26.....	285	1,674.00
19.....	75	375.00	22.....	40	220.00	27.....	60	350.00
1.....	70	350.00	22.....	20	60.00	27.....	9	42.00
19.....	78	390.00	22.....	12	66.00	27.....	12	66.00
19.....	75	375.00	22.....	11	62.00	27.....	12	66.00
19.....	77	385.00	22.....	12	66.00	27.....	12	66.00
19.....	119	774.00	22.....	12	66.00	27.....	95	591.00
19.....	125	813.00	22.....	12	66.00	27.....	98	539.00
19.....	117	761.00	23.....	85	533.00	28.....	30	90.00
19.....	110	715.00	23.....	82	512.00	28.....	78	390.00
19.....	113	735.00	23.....	140	700.00	28.....	78	390.00
19.....	100	650.00	23.....	140	700.00	28.....	80	400.00
19.....	112	728.00	23.....	11	63.00	28.....	82	410.00
19.....	114	741.00	23.....	12	66.00	28.....	84	420.00
19.....	133	860.00	23.....	12	66.00	28.....	82	410.00
19.....	97	631.00	23.....	12	66.00	28.....	80	400.00
19.....	91	592.00	23.....	224	1,275.00	28.....	116	812.00
19.....	121	787.00	24.....	10	55.00	28.....	129	903.00
19.....	120	780.00	24.....	30	90.00	28.....	112	728.00
19.....	134	938.00	24.....	20	60.00	28.....	123	793.00
19.....	136	952.00	24.....	30	90.00	28.....	109	709.00
19.....	111	552.00	24.....	30	90.00	28.....	107	696.00
19.....	93	465.00	24.....	20	60.00	28.....	116	812.00
19.....	9	50.00	24.....	12	66.00	28.....	123	861.00
19.....	12	66.00	24.....	12	66.00	28.....	115	748.00
19.....	30	98.00	24.....	9	62.00	28.....	103	670.00
19.....	20	60.00	24.....	11	63.00	28.....	98	637.00
20.....	20	60.00	24.....	12	66.00	28.....	122	793.00
20.....	22	66.00	26.....	108	702.00	28.....	40	220.00
20.....	12	66.00	26.....	112	728.00	29.....	20	88.00
20.....	12	63.00	26.....	113	735.00	29.....	20	60.00
20.....	125	687.00	26.....	117	761.00	29.....	30	90.00
20.....	123	676.00	26.....	116	754.00	29.....	30	90.00
20.....	108	540.00	26.....	113	791.00	29.....	30	90.00
20.....	68	359.00	26.....	125	875.00	29.....	12	66.00
21.....	11	63.00	26.....	127	899.00	29.....	12	66.00
21.....	30	90.00	26.....	117	819.00	29.....	11	60.00
21.....	30	90.00	26.....	137	959.00	30.....	12	66.00
21.....	20	60.00	26.....	123	861.00	30.....	12	66.00
21.....	22	66.00	26.....	131	917.00	30.....	12	66.00
21.....	111	777.00	26.....	66	330.00	30.....	12	66.00
21.....	137	959.00	26.....	70	350.00	30.....	12	66.00
21.....	122	861.00	26.....	78	390.00	30.....	12	66.00
21.....	116	812.00	26.....	72	360.00	30.....	12	66.00
21.....	126	882.00	26.....	74	370.00	30.....	12	66.00
21.....	137	959.00	26.....	70	350.00	30.....	12	66.00
21.....	112	784.00	26.....	68	340.00	30.....	12	78.00
21.....	140	980.00	26.....	63	415.00	31.....	12	66.00
21.....	78	390.00	26.....	76	380.00	31.....	12	66.00

PORT OF PLATTSBURG, N. Y.—Continued.

Pulp woods imported from Canada into the district of Champlain, port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

[Entered free of duty.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1907.	<i>Cords.</i>		1907.	<i>Cords.</i>		1907.	<i>Cords.</i>	
Aug. 31.....	12	\$66.00	Sept. 5.....	20	\$90.00	Sept. 9.....	118	\$590.00
31.....	12	66.00	5.....	222	1,377.00	9.....	110	605.00
31.....	10	55.00	5.....	30	90.00	9.....	125	750.00
31.....	12	66.00	5.....	30	90.00	9.....	10	30.00
31.....	30	90.00	5.....	12	66.00	9.....	12	66.00
31.....	30	90.00	6.....	154	910.00	9.....	12	66.00
31.....	30	90.00	6.....	30	90.00	9.....	20	60.00
31.....	30	90.00	6.....	70	350.00	9.....	20	70.00
31.....	30	90.00	6.....	69	345.00	9.....	20	65.00
31.....	9	50.00	6.....	83	415.00	9.....	20	65.00
31.....	12	66.00	6.....	100	700.00	9.....	460	2,616.00
Sept. 2.....	127	899.00	6.....	82	574.00	10.....	30	90.00
2.....	127	899.00	6.....	103	721.00	10.....	30	90.00
2.....	127	899.00	6.....	84	588.00	10.....	30	90.00
2.....	129	903.00	6.....	105	735.00	10.....	30	90.00
2.....	127	899.00	6.....	134	938.00	10.....	30	90.00
2.....	125	945.00	6.....	111	777.00	10.....	20	60.00
2.....	115	805.00	6.....	115	805.00	10.....	30	90.00
2.....	128	832.00	6.....	115	805.00	10.....	20	60.00
2.....	115	748.00	6.....	118	826.00	10.....	20	60.00
2.....	92	598.00	6.....	115	748.00	10.....	12	66.00
2.....	123	800.00	6.....	132	858.00	10.....	9	51.00
2.....	116	754.00	6.....	108	702.00	10.....	12	66.00
2.....	113	735.00	6.....	108	702.00	10.....	30	90.00
2.....	105	683.00	7.....	30	90.00	10.....	87	609.00
2.....	81	405.00	7.....	20	60.00	10.....	92	644.00
2.....	80	400.00	7.....	11	33.00	10.....	177	1,151.00
2.....	77	385.00	7.....	30	90.00	10.....	77	385.00
2.....	72	360.00	7.....	30	90.00	10.....	75	375.00
2.....	74	370.00	7.....	20	60.00	10.....	74	370.00
2.....	12	66.00	7.....	20	60.00	10.....	73	365.00
2.....	11	61.00	7.....	30	90.00	10.....	70	350.00
2.....	12	66.00	7.....	12	66.00	10.....	76	380.00
2.....	10	57.00	7.....	12	66.00	10.....	69	345.00
2.....	93	582.00	7.....	11	63.00	10.....	81	567.00
2.....	122	610.00	7.....	12	66.00	10.....	241	1,400.00
2.....	118	590.00	7.....	11	62.00	11.....	12	66.00
2.....	101	718.00	7.....	12	66.00	11.....	10	55.00
2.....	100	710.00	7.....	13	73.00	11.....	11	62.00
2.....	20	60.00	7.....	11	63.00	11.....	20	60.00
2.....	20	60.00	7.....	11	63.00	11.....	20	60.00
2.....	11	55.00	7.....	12	66.00	11.....	62	322.00
2.....	20	60.00	7.....	130	715.00	12.....	60	330.00
2.....	12	66.00	9.....	12	66.00	12.....	30	90.00
2.....	30	90.00	9.....	11	63.00	12.....	30	90.00
2.....	10	57.00	9.....	11	66.00	12.....	30	90.00
2.....	12	66.00	9.....	30	90.00	12.....	30	90.00
2.....	12	66.00	9.....	30	90.00	12.....	30	90.00
2.....	12	66.00	9.....	30	90.00	12.....	77	385.00
2.....	20	60.00	9.....	20	60.00	12.....	78	390.00
2.....	725	4,038.00	9.....	20	60.00	12.....	73	365.00
3.....	10	55.00	9.....	114	570.00	12.....	80	400.00
3.....	11	63.00	9.....	115	575.00	12.....	75	375.00
3.....	11	63.00	9.....	110	550.00	12.....	81	405.00
3.....	12	66.00	9.....	122	793.00	12.....	79	395.00
3.....	20	80.00	9.....	125	813.00	12.....	83	415.00
4.....	144	936.00	9.....	122	793.00	12.....	80	400.00
4.....	127	826.00	9.....	116	754.00	12.....	79	395.00
4.....	115	748.00	9.....	127	826.00	12.....	113	735.00
4.....	107	696.00	9.....	99	644.00	12.....	115	748.00
4.....	108	702.00	9.....	140	910.00	12.....	117	761.00
4.....	128	832.00	9.....	108	702.00	12.....	105	683.00
4.....	116	754.00	9.....	112	728.00	12.....	104	676.00
4.....	111	722.00	9.....	113	735.00	12.....	112	728.00
4.....	121	787.00	9.....	122	793.00	12.....	118	826.00
4.....	128	832.00	9.....	117	758.00	12.....	103	721.00
4.....	142	709.00	9.....	103	670.00	13.....	88	551.00
4.....	136	678.00	9.....	104	676.00	13.....	97	608.00
4.....	73	365.00	9.....	123	861.00	13.....	92	576.00
4.....	69	345.00	9.....	128	896.00	13.....	118	590.00
4.....	74	370.00	9.....	74	370.00	13.....	118	590.00
4.....	69	345.00	9.....	79	395.00	13.....	115	575.00
4.....	73	365.00	9.....	78	390.00	14.....	30	90.00
4.....	73	365.00	9.....	72	360.00	14.....	10	66.00
4.....	75	375.00	9.....	78	390.00	14.....	12	66.00
4.....	369	2,022.00	9.....	75	375.00	14.....	12	66.00

PORT OF PLATTSBURG, N. Y.—Continued.

Pulp woods imported from Canada into the district of Champlain, port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

[Entered free of duty.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1907.	<i>Cords.</i>		1907.	<i>Cords.</i>		1907.	<i>Cords.</i>	
Sept. 14.....	18	\$39. 00	Sept. 19.....	71	\$356. 00	Sept. 26.....	95	\$518. 00
14.....	12	66. 00	19.....	78	390. 00	26.....	111	722. 00
14.....	12	66. 00	19.....	75	375. 00	26.....	104	676. 00
14.....	30	90. 00	19.....	73	365. 00	26.....	108	702. 00
14.....	20	60. 00	19.....	75	375. 00	26.....	121	847. 00
14.....	109	1,040. 00	19.....	78	390. 00	27.....	25	148. 00
16.....	81	405. 00	19.....	76	380. 00	27.....	20	60. 00
16.....	74	370. 00	19.....	75	375. 00	27.....	12	66. 00
16.....	76	380. 00	19.....	95	617. 00	27.....	12	66. 00
16.....	79	395. 00	19.....	110	715. 00	27.....	12	66. 00
16.....	131	917. 00	19.....	108	702. 00	27.....	20	60. 00
16.....	121	847. 00	19.....	121	787. 00	27.....	132	924. 00
16.....	105	682. 00	19.....	125	812. 00	27.....	136	952. 00
16.....	122	793. 00	19.....	11	63. 00	27.....	127	889. 00
16.....	96	624. 00	19.....	275	1,630. 00	27.....	129	903. 00
16.....	101	657. 00	20.....	20	60. 00	27.....	122	854. 00
16.....	114	741. 00	20.....	30	90. 00	27.....	117	819. 00
16.....	133	865. 00	20.....	30	90. 00	27.....	136	952. 00
16.....	130	845. 00	20.....	30	90. 00	27.....	136	952. 00
16.....	124	806. 00	20.....	12	66. 00	27.....	102	663. 00
16.....	124	806. 00	20.....	12	66. 00	27.....	108	702. 00
16.....	11	61. 00	20.....	20	60. 00	27.....	114	741. 00
16.....	9	51. 00	20.....	159	879. 00	27.....	105	683. 00
16.....	12	66. 00	21.....	10	62. 00	27.....	107	696. 00
16.....	11	63. 00	21.....	12	66. 00	27.....	112	728. 00
16.....	12	66. 00	21.....	30	90. 00	27.....	128	832. 00
16.....	12	66. 00	21.....	40	220. 00	27.....	107	696. 00
16.....	12	66. 00	23.....	69	345. 00	27.....	115	748. 00
16.....	18	99. 00	23.....	71	355. 00	27.....	123	800. 00
16.....	20	60. 00	23.....	72	360. 00	28.....	327	1,637. 00
16.....	20	65. 00	23.....	71	355. 00	28.....	10	55. 00
16.....	202	972. 00	23.....	116	754. 00	30.....	115	662. 00
17.....	14	70. 00	23.....	123	800. 00	30.....	89	554. 00
17.....	154	883. 00	23.....	118	787. 00	30.....	89	555. 00
17.....	20	65. 00	23.....	105	683. 00	30.....	138	690. 00
17.....	20	65. 00	23.....	119	833. 00	30.....	132	660. 00
17.....	30	90. 00	23.....	123	861. 00	30.....	112	570. 00
17.....	30	90. 00	23.....	111	779. 00	30.....	77	385. 00
17.....	30	90. 00	23.....	123	861. 00	30.....	76	380. 00
17.....	30	90. 00	23.....	123	861. 00	30.....	79	395. 00
17.....	30	90. 00	23.....	90	495. 00	30.....	78	390. 00
17.....	120	630. 00	23.....	20	65. 00	30.....	78	390. 00
17.....	90	495. 00	23.....	20	65. 00	30.....	77	385. 00
17.....	90	495. 00	23.....	12	63. 00	30.....	77	385. 00
17.....	105	579. 00	23.....	10	65. 00	30.....	136	884. 00
17.....	97	534. 00	23.....	476	2,630. 00	30.....	134	871. 00
18.....	12	66. 00	24.....	10	55. 00	30.....	116	754. 00
18.....	30	90. 00	24.....	50	805. 00	30.....	131	852. 00
18.....	20	60. 00	24.....	20	70. 00	30.....	119	774. 00
18.....	12	66. 00	24.....	30	90. 00	30.....	125	819. 00
18.....	72	360. 00	24.....	12	66. 00	30.....	121	787. 00
18.....	79	395. 00	24.....	12	66. 00	30.....	30	90. 00
18.....	71	355. 00	24.....	30	90. 00	30.....	30	90. 00
18.....	84	470. 00	24.....	20	60. 00	30.....	11	61. 00
18.....	83	415. 00	24.....	12	66. 00	30.....	13	72. 00
18.....	106	689. 00	25.....	14	84. 00	30.....	18	79. 00
18.....	162	1,134. 00	25.....	12	65. 00	30.....	16	48. 00
18.....	114	798. 00	25.....	11	63. 00	30.....	30	90. 00
18.....	165	1,155. 00	25.....	20	60. 00	30.....	30	90. 00
18.....	114	798. 00	25.....	30	90. 00	30.....	30	90. 00
18.....	122	854. 00	25.....	20	60. 00	30.....	12	66. 00
18.....	114	741. 00	26.....	129	645. 00	30.....	30	90. 00
18.....	102	663. 00	26.....	126	631. 00	30.....	30	90. 00
18.....	127	825. 00	26.....	124	622. 00	Oct. 1.....	9	50. 00
18.....	107	695. 00	26.....	81	405. 00	1.....	10	60. 00
18.....	106	689. 00	26.....	82	410. 00	1.....	20	60. 00
18.....	115	805. 00	26.....	112	728. 00	1.....	40	220. 00
18.....	101	707. 00	26.....	97	631. 00	2.....	14	53. 00
18.....	116	812. 00	26.....	117	679. 00	2.....	84	504. 00
18.....	104	728. 00	26.....	103	670. 00	3.....	12	66. 00
18.....	106	742. 00	26.....	103	670. 00	3.....	12	66. 00
18.....	117	819. 00	26.....	111	777. 00	3.....	12	66. 00
18.....	40	220. 00	26.....	115	805. 00	3.....	11	61. 00
19.....	72	360. 00	26.....	120	840. 00	4.....	20	60. 00
19.....	80	400. 00	26.....	78	507. 00	4.....	12	66. 00
19.....	70	350. 00	26.....	78	507. 00	4.....	20	60. 00

PORT OF PLATTSBURG, N. Y.—Continued.

Pulp woods imported from Canada into the district of Champlain, port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

[Entered free of duty.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1907.	<i>Cords.</i>		1907.	<i>Cords.</i>		1907.	<i>Cords.</i>	
Oct. 4.....	20	\$65.00	Oct. 8.....	20	\$80.00	Oct. 14.....	101	\$657.00
4.....	20	60.00	8.....	20	80.00	14.....	130	845.00
4.....	30	90.00	10.....	133	931.00	14.....	124	806.00
4.....	10	45.00	10.....	124	868.00	14.....	109	709.00
4.....	40	220.00	10.....	111	798.00	14.....	123	800.00
5.....	92	598.00	10.....	111	777.00	14.....	12	60.00
5.....	30	90.00	10.....	116	812.00	14.....	9	60.00
5.....	20	60.00	10.....	135	945.00	14.....	20	90.00
5.....	20	65.00	10.....	102	721.00	14.....	18	54.30
5.....	11	61.00	10.....	134	938.00	14.....	12	66.00
5.....	12	66.00	10.....	113	735.00	14.....	18	99.00
5.....	30	90.00	10.....	98	637.00	14.....	12	66.00
5.....	20	60.00	10.....	109	709.00	14.....	12	66.00
5.....	30	90.00	10.....	108	702.00	14.....	12	62.00
5.....	30	90.00	10.....	109	709.00	14.....	31	176.00
5.....	30	90.00	10.....	113	735.00	15.....	70	395.00
5.....	30	90.00	10.....	112	728.00	15.....	85	425.00
7.....	117	761.00	10.....	114	741.00	15.....	96	430.00
7.....	116	754.00	10.....	97	634.00	15.....	105	525.00
7.....	131	852.00	10.....	103	670.00	15.....	105	525.00
7.....	175	813.00	10.....	73	365.00	15.....	94	470.00
7.....	129	839.00	10.....	74	370.00	15.....	95	475.00
7.....	125	813.00	10.....	60	305.00	15.....	115	448.00
7.....	117	760.00	10.....	72	360.00	15.....	112	728.00
7.....	109	709.00	10.....	20	80.00	15.....	101	657.00
7.....	165	1,073.00	10.....	21	84.00	15.....	108	702.00
7.....	127	889.00	10.....	20	80.00	15.....	112	728.00
7.....	111	777.00	10.....	12	66.00	15.....	106	690.00
7.....	121	847.00	10.....	12	66.00	15.....	108	702.00
7.....	127	889.00	10.....	12	66.00	15.....	102	693.00
7.....	123	861.00	10.....	12	66.00	15.....	110	715.00
7.....	123	861.00	10.....	12	66.00	15.....	109	709.00
7.....	114	570.00	10.....	20	80.00	15.....	113	735.00
7.....	101	505.00	10.....	20	80.00	15.....	109	709.00
7.....	122	608.00	10.....	20	80.00	15.....	30	90.00
7.....	113	566.00	10.....	73	389.00	15.....	30	90.00
7.....	99	386.00	11.....	15	75.00	15.....	30	90.00
7.....	85	425.00	11.....	12	66.00	15.....	100	542.00
7.....	86	430.00	11.....	12	66.00	16.....	26	154.00
7.....	78	390.00	11.....	30	90.00	16.....	30	90.00
7.....	80	440.00	11.....	30	90.00	16.....	12	65.00
7.....	114	570.00	11.....	12	66.00	16.....	20	80.00
7.....	124	620.00	11.....	12	66.00	16.....	115	805.00
7.....	84	529.00	11.....	12	66.00	16.....	112	784.00
7.....	91	570.00	11.....	12	66.00	16.....	95	665.00
7.....	30	90.00	11.....	12	66.00	16.....	110	770.00
7.....	20	60.00	11.....	30	90.00	16.....	107	749.00
7.....	20	90.00	11.....	30	90.00	16.....	110	770.00
7.....	12	66.00	11.....	20	80.00	16.....	113	791.00
7.....	20	80.00	12.....	24	96.00	16.....	115	805.00
7.....	127	826.00	12.....	20	65.00	16.....	114	798.00
7.....	122	854.00	12.....	12	66.00	16.....	106	742.00
7.....	132	924.00	12.....	20	60.00	16.....	121	847.00
7.....	126	819.00	12.....	12	63.00	17.....	30	90.00
7.....	100	650.00	12.....	20	70.00	17.....	20	60.00
7.....	93	651.00	12.....	20	70.00	19.....	41	154.00
7.....	117	819.00	12.....	99	563.00	19.....	20	60.00
7.....	118	826.00	14.....	93	512.00	19.....	20	60.00
7.....	103	721.00	14.....	122	608.00	19.....	30	90.00
7.....	123	800.00	14.....	133	662.00	19.....	12	66.00
7.....	131	852.00	14.....	76	380.00	21.....	90	460.00
7.....	89	579.00	14.....	108	754.00	21.....	87	435.00
7.....	84	420.00	14.....	113	791.00	21.....	70	350.00
7.....	75	375.00	14.....	102	714.00	21.....	70	350.00
7.....	82	410.00	14.....	122	854.00	21.....	80	400.00
7.....	80	400.00	14.....	129	903.00	21.....	72	360.00
7.....	72	360.00	14.....	92	644.00	21.....	73	365.00
7.....	71	355.00	14.....	118	826.00	21.....	72	360.00
7.....	74	370.00	14.....	126	882.00	21.....	74	370.00
7.....	94	534.00	14.....	112	784.00	21.....	132	660.00
8.....	87	482.00	14.....	95	665.00	21.....	114	570.00
8.....	20	60.00	14.....	117	819.00	21.....	108	756.00
8.....	12	66.00	14.....	102	714.00	21.....	120	840.00
8.....	9	60.00	14.....	116	754.00	21.....	118	826.00
8.....	20	60.00	14.....	110	715.00	21.....	106	742.00
8.....	20	80.00	14.....	105	683.00	21.....	125	813.00

PORT OF PLATTSBURG, N. Y.—Continued.

Pulp woods imported from Canada into the district of Champlain, port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

[Entered free of duty.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1907.	<i>Cords.</i>		1907.	<i>Cords.</i>		1907.	<i>Cords.</i>	
Oct. 21.....	109	\$709.00	Oct. 25.....	20	\$80.00	Oct. 31.....	9	\$50.00
21.....	95	618.00	25.....	30	90.00	31.....	12	66.00
21.....	116	754.00	25.....	30	90.00	1.....	20	60.00
21.....	134	670.00	25.....	20	60.00	1.....	30	90.00
21.....	123	615.00	25.....	12	66.00	1.....	20	60.00
21.....	30	90.00	25.....	12	66.00	1.....	108	540.00
21.....	20	60.00	25.....	116	659.00	1.....	116	580.00
21.....	30	90.00	26.....	20	60.00	1.....	124	620.00
21.....	30	90.00	26.....	30	90.00	2.....	12	66.00
21.....	30	90.00	26.....	20	60.00	2.....	30	90.00
21.....	30	90.00	26.....	48	269.00	2.....	20	60.00
21.....	21	64.00	28.....	12	66.00	2.....	20	60.00
21.....	12	66.00	28.....	20	60.00	2.....	30	90.00
21.....	30	90.00	28.....	30	90.00	2.....	30	90.00
21.....	219	1,158.00	28.....	9	50.00	2.....	18	99.00
22.....	110	582.00	28.....	108	742.00	2.....	30	90.00
22.....	20	60.00	28.....	119	833.00	2.....	124	597.00
22.....	20	60.00	28.....	120	840.00	4.....	101	505.00
22.....	12	66.00	28.....	125	875.00	4.....	103	515.00
22.....	12	66.00	28.....	110	770.00	4.....	91	455.00
22.....	20	60.00	28.....	104	676.00	4.....	80	400.00
22.....	30	90.00	28.....	118	767.00	4.....	77	385.00
23.....	74	370.00	28.....	108	689.00	4.....	86	430.00
23.....	71	355.00	28.....	107	696.00	4.....	74	370.00
23.....	79	395.00	28.....	128	630.00	4.....	92	460.00
23.....	74	370.00	28.....	20	60.00	4.....	66	330.00
23.....	72	360.00	28.....	18	99.00	4.....	83	415.00
23.....	71	355.00	28.....	20	60.00	4.....	171	855.00
23.....	72	360.00	28.....	12	66.00	4.....	129	648.00
23.....	73	365.00	28.....	18	99.00	4.....	118	767.00
23.....	117	761.00	28.....	12	66.00	4.....	113	735.00
23.....	129	839.00	28.....	12	66.00	4.....	122	793.00
23.....	116	754.00	28.....	12	66.00	4.....	127	826.00
23.....	124	806.00	28.....	12	66.00	4.....	138	807.00
23.....	105	683.00	28.....	12	66.00	4.....	100	700.00
23.....	104	676.00	28.....	12	66.00	4.....	175	1,225.00
23.....	73	475.00	28.....	12	66.00	4.....	124	868.00
23.....	111	777.00	28.....	12	63.00	4.....	107	749.00
23.....	129	903.00	28.....	20	60.00	4.....	12	66.00
23.....	112	784.00	28.....	9	50.00	4.....	20	60.00
23.....	117	819.00	28.....	132	652.00	4.....	20	60.00
23.....	115	805.00	29.....	20	90.00	4.....	18	99.00
23.....	133	931.00	29.....	10	55.00	4.....	9	50.00
23.....	129	903.00	29.....	115	575.00	4.....	20	60.00
23.....	102	714.00	29.....	133	865.00	4.....	22	66.00
23.....	90	471.00	29.....	117	761.00	4.....	18	99.00
23.....	90	473.00	29.....	108	689.00	4.....	170	1,015.00
23.....	111	555.00	29.....	89	579.00	5.....	130	733.00
23.....	12	66.00	29.....	86	559.00	5.....	111	722.00
23.....	12	66.00	29.....	80	520.00	5.....	106	689.00
23.....	12	66.00	29.....	117	761.00	5.....	115	748.00
23.....	20	60.00	29.....	123	800.00	5.....	104	676.00
23.....	30	165.00	29.....	117	819.00	5.....	107	696.00
23.....	10	55.00	29.....	128	896.00	5.....	107	696.00
24.....	108	702.00	29.....	128	896.00	5.....	116	754.00
24.....	122	793.00	29.....	119	833.00	5.....	110	715.00
24.....	115	748.00	29.....	81	405.00	5.....	79	395.00
24.....	107	696.00	29.....	80	400.00	5.....	75	375.00
24.....	112	728.00	29.....	81	405.00	5.....	77	385.00
24.....	114	741.00	29.....	70	350.00	5.....	75	375.00
24.....	115	748.00	29.....	64	320.00	5.....	74	370.00
24.....	107	696.00	29.....	78	390.00	5.....	78	380.00
24.....	107	696.00	29.....	59	295.00	5.....	73	365.00
24.....	72	360.00	29.....	75	375.00	5.....	73	390.00
24.....	77	385.00	29.....	137	715.00	5.....	67	335.00
24.....	79	395.00	30.....	40	202.00	5.....	72	360.00
24.....	74	370.00	30.....	36	153.00	6.....	30	90.00
24.....	75	375.00	30.....	12	63.00	6.....	20	60.00
24.....	75	375.00	30.....	12	66.00	6.....	11	60.00
24.....	22	121.00	30.....	12	66.00	6.....	12	66.00
25.....	9	50.00	30.....	12	66.00	6.....	11	62.00
25.....	30	90.00	30.....	12	66.00	6.....	11	60.00
25.....	20	60.00	31.....	12	66.00	7.....	30	90.00
25.....	30	90.00	31.....	30	90.00	7.....	12	66.00
25.....	30	90.00	31.....	30	90.00	7.....	30	70.00

PORT OF PLATTSBURG, N. Y.—Continued.

Pulp woods imported from Canada into the district of Champlain, port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

[Entered free of duty.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1907.	<i>Cords.</i>		1907.	<i>Cords.</i>		1907.	<i>Cords.</i>	
Nov. 7.....	18	\$99.00	Nov. 18.....	115	\$305.00	Nov. 25.....	18	\$99.00
7.....	131	723.00	18.....	121	847.00	25.....	18	99.00
8.....	117	761.00	18.....	115	805.00	25.....	18	99.00
8.....	119	774.00	18.....	122	854.00	25.....	12	66.00
8.....	105	683.00	18.....	122	610.00	25.....	12	66.00
8.....	105	683.00	18.....	72	365.00	25.....	12	66.00
8.....	105	683.00	18.....	106	530.00	25.....	12	66.00
8.....	100	650.00	18.....	111	555.00	25.....	12	66.00
8.....	99	603.00	18.....	105	525.00	25.....	9	50.00
8.....	121	847.00	18.....	103	515.00	25.....	12	66.00
8.....	131	917.00	18.....	72	360.00	25.....	18	99.00
8.....	122	854.00	18.....	77	385.00	25.....	79	443.00
8.....	126	882.00	18.....	120	720.00	26.....	20	60.00
8.....	135	945.00	18.....	120	720.00	26.....	30	90.00
8.....	69	345.00	18.....	130	845.00	26.....	30	90.00
8.....	80	400.00	18.....	140	910.00	26.....	20	60.00
8.....	81	405.00	18.....	113	800.00	26.....	20	60.00
8.....	78	360.00	18.....	12	66.00	26.....	10	55.00
8.....	11	59.00	18.....	12	66.00	26.....	30	175.00
8.....	20	80.00	18.....	20	60.00	27.....	20	60.00
8.....	100	465.00	18.....	30	90.00	27.....	18	99.00
9.....	105	683.00	18.....	12	66.00	27.....	12	66.00
9.....	105	683.00	18.....	12	66.00	27.....	84	470.00
9.....	103	670.00	18.....	12	66.00	27.....	89	445.00
9.....	118	767.00	18.....	238	1,225.00	27.....	97	679.00
9.....	104	678.00	19.....	12	66.00	27.....	98	476.00
9.....	108	540.00	19.....	12	66.00	27.....	82	574.00
9.....	74	370.00	19.....	147	818.00	28.....	20	60.00
9.....	71	355.00	20.....	120	600.00	28.....	20	60.00
9.....	80	400.00	20.....	104	520.00	28.....	30	90.00
9.....	80	400.00	20.....	12	66.00	28.....	12	66.00
9.....	68	340.00	20.....	10	55.00	28.....	10	55.00
9.....	74	370.00	20.....	90	455.00	29.....	13	72.00
9.....	73	365.00	21.....	119	833.00	29.....	11	51.00
9.....	79	365.00	21.....	121	847.00	29.....	10	55.00
9.....	90	450.00	21.....	122	854.00	29.....	98	672.00
9.....	12	66.00	21.....	119	832.00	29.....	90	630.00
9.....	12	66.00	21.....	113	791.00	29.....	91	637.00
9.....	9	50.00	21.....	119	833.00	29.....	30	165.00
9.....	18	99.00	21.....	80	400.00	30.....	30	90.00
9.....	30	90.00	21.....	67	335.00	Dec. 2.....	10	55.00
9.....	20	66.00	21.....	77	385.00	2.....	12	66.00
9.....	12	66.00	21.....	72	360.00	2.....	11	61.00
11.....	9	50.00	21.....	73	365.00	2.....	20	60.00
11.....	126	630.00	21.....	97	485.00	2.....	12	66.00
11.....	225	1,262.00	21.....	85	425.00	2.....	18	99.00
12.....	20	80.00	21.....	78	390.00	2.....	12	66.00
12.....	156	771.00	21.....	86	431.00	2.....	12	66.00
13.....	12	66.00	21.....	78	390.00	2.....	9	50.00
13.....	18	99.00	21.....	77	539.00	2.....	20	60.00
13.....	12	66.00	21.....	78	408.00	2.....	107	577.00
13.....	12	66.00	22.....	70	370.00	3.....	80	90.00
13.....	12	66.00	22.....	12	66.00	3.....	20	60.00
13.....	121	787.00	22.....	12	66.00	3.....	20	70.00
13.....	122	793.00	22.....	9	50.00	3.....	20	70.00
13.....	117	761.00	23.....	20	60.00	3.....	12	66.00
13.....	124	806.00	23.....	20	70.00	3.....	12	66.00
13.....	121	787.00	23.....	12	66.00	3.....	9	44.00
13.....	74	370.00	23.....	78	391.00	4.....	20	60.00
13.....	98	460.00	23.....	130	650.00	4.....	18	70.00
14.....	14	40.00	23.....	110	550.00	4.....	26	91.00
14.....	100	880.00	23.....	113	565.00	4.....	66	358.00
15.....	94	522.00	23.....	110	550.00	5.....	18	99.00
16.....	20	80.00	23.....	93	651.00	5.....	36	189.00
16.....	12	66.00	23.....	82	574.00	6.....	9	50.00
16.....	12	66.00	23.....	62	331.00	6.....	12	66.00
16.....	12	66.00	25.....	18	99.00	6.....	12	66.00
16.....	12	66.00	25.....	12	66.00	6.....	12	66.00
16.....	12	66.00	25.....	12	66.00	6.....	20	65.00
16.....	127	635.00	25.....	12	66.00	6.....	10	55.00
16.....	134	670.00	25.....	12	66.00	6.....	10	55.00
16.....	128	640.00	25.....	12	66.00	6.....	11	61.00
18.....	113	735.00	25.....	12	66.00	6.....	25	150.00
18.....	117	761.00	25.....	12	66.00	7.....	12	66.00
18.....	122	800.00	25.....	12	66.00	7.....	9	50.00
18.....	121	787.00	25.....	10	55.00	9.....	30	90.00

PORT OF PLATTSBURG, N. Y.—Continued.

Pulp woods imported from Canada into the district of Champlain, port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

[Entered free of duty.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1907.	<i>Cords.</i>		1907.	<i>Cords.</i>		1908.	<i>Cords.</i>	
Dec. 9.....	9	\$50.00	Dec. 23.....	30	\$90.00	Jan. 3.....	10	\$32.00
9.....	10	55.00	23.....	30	90.00	3.....	9	50.00
9.....	12	66.00	23.....	30	90.00	3.....	10	52.00
9.....	12	66.00	23.....	168	1,036.00	3.....	12	66.00
9.....	18	99.00	24.....	30	90.00	3.....	12	66.00
9.....	62	\$60.00	25.....	30	90.00	3.....	20	90.00
10.....	20	60.00	25.....	30	90.00	3.....	20	60.00
10.....	20	60.00	25.....	30	90.00	3.....	20	60.00
10.....	20	60.00	25.....	20	60.00	3.....	30	90.00
10.....	18	99.00	25.....	9	51.00	3.....	30	90.00
10.....	10	55.00	26.....	30	90.00	3.....	30	90.00
10.....	30	90.00	26.....	20	60.00	3.....	15	69.00
10.....	70	\$35.00	26.....	30	90.00	4.....	30	90.00
11.....	61	347.00	26.....	20	60.00	4.....	30	90.00
11.....	20	60.00	26.....	165	988.00	4.....	20	60.00
11.....	20	60.00	27.....	61	306.00	4.....	20	80.00
11.....	20	60.00	27.....	30	90.00	4.....	20	65.00
11.....	30	90.00	27.....	30	90.00	4.....	12	50.00
11.....	30	90.00	27.....	30	90.00	4.....	12	66.00
11.....	30	90.00	27.....	30	90.00	4.....	76	458.00
11.....	9	50.00	27.....	30	90.00	6.....	12	62.00
12.....	20	60.00	27.....	30	90.00	6.....	10	51.00
12.....	36	178.00	27.....	12	66.00	6.....	10	56.00
13.....	20	70.00	27.....	11	63.00	6.....	20	80.00
13.....	10	55.00	27.....	12	66.00	6.....	22	128.00
13.....	12	66.00	27.....	30	90.00	7.....	30	90.00
13.....	11	61.00	27.....	20	60.00	7.....	20	60.00
13.....	20	70.00	27.....	30	98.00	7.....	30	90.00
13.....	110	605.00	28.....	12	66.00	7.....	30	90.00
14.....	12	66.00	28.....	30	90.00	7.....	20	60.00
14.....	30	90.00	28.....	30	90.00	7.....	20	80.00
14.....	12	86.00	28.....	30	90.00	7.....	30	90.00
16.....	20	90.00	28.....	30	90.00	7.....	30	90.00
16.....	79	450.00	30.....	40	161.00	7.....	9	50.00
17.....	35	200.00	30.....	90	535.00	7.....	11	61.00
17.....	10	60.00	30.....	30	90.00	7.....	115	658.00
17.....	10	60.00	30.....	9	50.00	8.....	40	165.00
17.....	12	66.00	30.....	9	50.00	8.....	12	66.00
17.....	12	66.00	30.....	12	66.00	8.....	12	66.00
17.....	10	60.00	30.....	12	66.00	8.....	12	66.00
18.....	12	66.00	30.....	18	99.00	8.....	9	50.00
18.....	30	90.00	30.....	12	66.00	9.....	12	66.00
18.....	20	60.00	30.....	12	66.00	9.....	12	66.00
18.....	116	714.00	30.....	12	66.00	9.....	11	63.00
19.....	63	323.00	30.....	11	63.00	9.....	8	46.00
19.....	30	90.00	30.....	12	66.00	9.....	95	522.00
20.....	20	70.00	30.....	12	66.00	10.....	20	115.00
20.....	10	55.00	30.....	12	66.00	10.....	14	70.00
20.....	12	66.00	30.....	20	80.00	10.....	10	55.00
20.....	12	66.00	30.....	30	90.00	10.....	9	45.00
20.....	12	66.00	30.....	30	90.00	10.....	18	90.00
20.....	9	50.00	30.....	30	90.00	10.....	18	90.00
20.....	11	56.00	31.....	30	90.00	10.....	18	90.00
20.....	12	63.00	31.....	9	51.00	10.....	30	90.00
20.....	11	66.00				10.....	30	90.00
20.....	30	90.00	1908.			10.....	30	90.00
20.....	30	90.00	Jan. 1.....	16	64.00	10.....	30	90.00
20.....	30	90.00	1.....	9	50.00	10.....	30	90.00
20.....	30	90.00	1.....	12	66.00	10.....	30	90.00
20.....	30	90.00	1.....	12	66.00	10.....	20	90.00
20.....	30	90.00	1.....	18	99.00	10.....	30	90.00
20.....	30	90.00	1.....	20	60.00	10.....	30	90.00
20.....	30	90.00	1.....	20	80.00	10.....	30	90.00
23.....	13	65.00	1.....	30	90.00	10.....	30	90.00
23.....	12	66.00	2.....	14	69.00	10.....	30	90.00
23.....	12	66.00	2.....	12	66.00	10.....	20	90.00
23.....	12	66.00	2.....	147	794.00	11.....	30	90.00
23.....	20	60.00	3.....	75	415.00	11.....	30	90.00
23.....	30	90.00	3.....	20	90.00	11.....	19	95.00
23.....	20	60.00	3.....	20	60.00	11.....	18	90.00
23.....	30	90.00	3.....	20	60.00	11.....	18	90.00
23.....	20	60.00	3.....	12	66.00	11.....	18	90.00
23.....	20	60.00	3.....	12	66.00	11.....	10	55.00
23.....	30	90.00	3.....	20	90.00	11.....	20	60.00
23.....	30	90.00	3.....	12	66.00	11.....	20	60.00

PORT OF PLATTSBURG, N. Y.—Continued.

Pulp woods imported from Canada into the district of Champlain, port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

[Entered free of duty.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1908.	<i>Cords.</i>		1908.	<i>Cords.</i>		1908.	<i>Cords.</i>	
Jan. 11.....	20	\$60.00	Jan. 20.....	12	\$66.00	Jan. 24.....	30	\$98.00
11.....	30	90.00	20.....	12	66.00	24.....	30	98.00
11.....	20	60.00	20.....	16	80.00	24.....	14	70.00
11.....	20	60.00	20.....	14	70.00	24.....	20	80.00
11.....	30	90.00	20.....	14	70.00	24.....	20	80.00
11.....	30	90.00	20.....	14	70.00	24.....	20	80.00
11.....	10	55.00	20.....	14	70.00	24.....	20	80.00
13.....	20	90.00	20.....	22	88.00	24.....	20	80.00
13.....	211	1,180.00	20.....	20	80.00	24.....	33	99.00
13.....	20	80.00	20.....	22	88.00	24.....	22	88.00
13.....	12	66.00	20.....	22	88.00	24.....	22	88.00
13.....	12	66.00	20.....	20	80.00	24.....	22	88.00
13.....	30	90.00	20.....	22	88.00	24.....	22	88.00
13.....	12	81.00	20.....	22	88.00	24.....	22	88.00
13.....	30	90.00	20.....	20	80.00	24.....	22	88.00
13.....	19	95.00	20.....	20	65.00	24.....	22	88.00
13.....	12	66.00	20.....	16	80.00	24.....	22	88.00
13.....	12	66.00	20.....	20	80.00	24.....	169	1,234.00
13.....	12	66.00	20.....	175	999.00	25.....	14	70.00
13.....	12	66.00	21.....	501	3,228.00	25.....	10	60.00
14.....	30	90.00	21.....	20	70.00	25.....	14	70.00
14.....	30	90.00	21.....	30	90.00	25.....	14	70.00
14.....	30	90.00	21.....	20	80.00	25.....	16	80.00
14.....	30	90.00	21.....	20	80.00	25.....	22	88.00
14.....	30	90.00	21.....	20	80.00	25.....	24	96.00
14.....	30	90.00	21.....	20	80.00	25.....	14	70.00
14.....	30	90.00	21.....	22	88.00	25.....	14	70.00
14.....	19	95.00	21.....	10	55.00	25.....	14	70.00
14.....	18	90.00	21.....	10	55.00	25.....	14	70.00
14.....	18	90.00	21.....	10	55.00	25.....	14	70.00
15.....	30	90.00	21.....	10	55.00	25.....	14	70.00
15.....	30	90.00	21.....	10	55.00	27.....	14	70.00
15.....	30	90.00	21.....	14	77.00	27.....	14	70.00
15.....	30	90.00	21.....	14	77.00	27.....	16	80.00
15.....	30	90.00	21.....	16	88.00	27.....	14	70.00
15.....	30	90.00	22.....	14	70.00	27.....	14	70.00
15.....	30	90.00	22.....	20	80.00	27.....	16	80.00
15.....	30	90.00	22.....	20	80.00	27.....	14	70.00
15.....	212	1,274.00	22.....	20	80.00	27.....	20	80.00
16.....	30	90.00	22.....	22	88.00	27.....	20	80.00
16.....	16	64.00	22.....	22	88.00	27.....	20	98.00
16.....	30	90.00	22.....	22	88.00	27.....	20	80.00
16.....	30	90.00	22.....	22	88.00	27.....	30	90.00
16.....	12	66.00	22.....	22	88.00	27.....	20	65.00
16.....	19	95.00	22.....	30	90.00	27.....	20	65.00
16.....	10	50.00	22.....	22	88.00	27.....	30	98.00
16.....	189	1,087.00	22.....	30	60.00	27.....	10	50.00
17.....	20	60.00	22.....	22	88.00	27.....	20	80.00
17.....	20	60.00	22.....	22	88.00	27.....	20	80.00
17.....	30	90.00	22.....	22	88.00	27.....	20	80.00
17.....	19	95.00	22.....	22	88.00	27.....	20	80.00
17.....	30	90.00	22.....	22	88.00	27.....	20	80.00
17.....	194	1,123.00	22.....	20	80.00	27.....	20	80.00
18.....	15	75.00	22.....	20	80.00	27.....	20	80.00
18.....	15	75.00	22.....	30	90.00	27.....	20	80.00
18.....	16	80.00	22.....	20	80.00	27.....	20	80.00
18.....	30	90.00	22.....	20	80.00	27.....	20	80.00
18.....	20	60.00	22.....	20	80.00	27.....	30	98.00
18.....	20	60.00	22.....	12	66.00	27.....	20	80.00
18.....	20	60.00	22.....	11	61.00	27.....	20	80.00
18.....	12	66.00	22.....	12	66.00	27.....	20	80.00
18.....	12	66.00	22.....	205	1,203.00	27.....	30	98.00
18.....	30	90.00	22.....	15	60.00	27.....	11	62.00
18.....	15	75.00	23.....	12	66.00	27.....	20	80.00
18.....	15	75.00	23.....	12	66.00	27.....	20	80.00
18.....	20	60.00	23.....	18	99.00	27.....	236	1,726.00
18.....	30	90.00	23.....	12	65.00	27.....	306	1,768.00
18.....	16	80.00	23.....	20	60.00	28.....	10	60.00
18.....	16	80.00	23.....	20	80.00	28.....	20	65.00
20.....	24	96.00	23.....	30	90.00	28.....	20	65.00
20.....	30	90.00	23.....	30	98.00	28.....	14	70.00
20.....	30	90.00	23.....	20	65.00	28.....	14	70.00
20.....	30	90.00	23.....	10	40.00	28.....	18	90.00
20.....	30	90.00	23.....	187	1,171.00	28.....	18	90.00
20.....	30	90.00	24.....	12	66.00	28.....	10	60.00

PORT OF PLATTSBURG, N. Y.—Continued.

Pulp woods imported from Canada into the district of Champlain, port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

[Entered free of duty.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1908.	<i>Cords.</i>		1908.	<i>Cords.</i>		1908.	<i>Cords.</i>	
Jan. 28.....	18	\$90.00	Feb. 12.....	159	\$953.00	Feb. 18.....	21	\$84.00
28.....	18	90.00	12.....	10	50.00	18.....	20	80.00
28.....	197	1,121.00	12.....	18	90.00	18.....	20	80.00
28.....	281	1,993.00	12.....	10	40.00	18.....	20	160.00
29.....	10	50.00	12.....	20	80.00	18.....	20	160.00
29.....	20	80.00	12.....	20	80.00	18.....	20	160.00
29.....	15	60.00	12.....	20	80.00	18.....	20	240.00
29.....	11	42.00	12.....	20	65.00	18.....	20	80.00
29.....	16	80.00	13.....	14	56.00	18.....	20	80.00
29.....	14	70.00	13.....	12	60.00	18.....	499	2,655.00
29.....	10	55.00	13.....	13	72.00	19.....	10	40.00
29.....	20	80.00	13.....	122	766.00	19.....	20	80.00
29.....	9	50.00	14.....	20	80.00	19.....	21	84.00
29.....	11	61.00	14.....	10	40.00	19.....	20	80.00
29.....	12	66.00	14.....	20	80.00	19.....	20	80.00
29.....	12	66.00	14.....	30	98.00	19.....	14	70.00
29.....	9	50.00	14.....	20	80.00	19.....	20	80.00
29.....	12	66.00	14.....	20	80.00	19.....	20	80.00
29.....	12	66.00	14.....	10	40.00	19.....	21	84.00
30.....	10	55.00	15.....	20	80.00	19.....	12	60.00
30.....	11	77.00	15.....	12	66.00	19.....	20	80.00
30.....	10	80.00	15.....	10	40.00	19.....	10	33.00
30.....	18	99.00	15.....	20	80.00	19.....	20	60.00
30.....	20	90.00	15.....	480	3,116.00	19.....	11	61.00
30.....	10	40.00	17.....	30	98.00	19.....	9	50.00
30.....	20	80.00	17.....	18	90.00	19.....	12	63.00
30.....	20	90.00	17.....	21	84.00	19.....	9	50.00
30.....	20	80.00	17.....	20	80.00	19.....	12	66.00
30.....	20	80.00	17.....	20	65.00	19.....	12	66.00
31.....	18	90.00	17.....	18	90.00	19.....	20	80.00
31.....	18	90.00	17.....	18	90.00	19.....	12	66.00
31.....	10	50.00	17.....	18	90.00	19.....	12	66.00
31.....	18	90.00	17.....	18	90.00	19.....	12	66.00
31.....	18	90.00	17.....	18	90.00	19.....	12	60.00
31.....	18	90.00	17.....	18	90.00	19.....	12	72.00
31.....	18	90.00	17.....	18	90.00	19.....	12	60.00
31.....	18	90.00	17.....	18	90.00	19.....	10	50.00
31.....	18	90.00	17.....	10	50.00	19.....	12	60.00
31.....	18	90.00	17.....	18	90.00	19.....	12	66.00
31.....	18	90.00	17.....	18	90.00	19.....	12	66.00
31.....	18	90.00	17.....	18	90.00	19.....	9	50.00
31.....	10	50.00	17.....	18	90.00	19.....	12	66.00
31.....	30	98.00	17.....	10	52.00	19.....	9	50.00
31.....	20	65.00	17.....	12	66.00	19.....	20	80.00
31.....	10	50.00	17.....	18	90.00	19.....	20	80.00
31.....	18	90.00	17.....	10	50.00	19.....	20	80.00
31.....	18	90.00	17.....	20	80.00	19.....	20	80.00
31.....	16	80.00	17.....	12	66.00	19.....	230	1,205.00
31.....	14	70.00	17.....	10	52.00	20.....	94	608.00
Feb. 1.....	10	55.00	17.....	11	61.00	20.....	12	66.00
1.....	10	30.00	17.....	12	66.00	20.....	10	40.00
1.....	10	50.00	17.....	12	66.00	20.....	10	50.00
1.....	11	59.00	17.....	18	90.00	20.....	10	40.00
1.....	10	40.00	17.....	18	90.00	21.....	12	66.00
2.....	14	56.00	17.....	18	90.00	21.....	10	40.00
2.....	20	80.00	17.....	20	80.00	21.....	10	55.00
2.....	20	80.00	17.....	20	80.00	21.....	11	61.00
2.....	18	90.00	17.....	24	96.00	21.....	12	66.00
2.....	18	90.00	17.....	20	80.00	21.....	10	55.00
2.....	18	90.00	17.....	20	80.00	21.....	12	66.00
2.....	126	782.00	17.....	20	80.00	21.....	12	60.00
5.....	12	60.00	17.....	10	50.00	21.....	12	60.00
5.....	16	80.00	17.....	517	3,354.00	21.....	12	66.00
5.....	14	70.00	18.....	10	50.00	21.....	12	66.00
10.....	10	40.00	18.....	20	90.00	21.....	18	99.00
10.....	10	50.00	18.....	10	50.00	21.....	12	66.00
10.....	20	80.00	18.....	18	90.00	21.....	12	60.00
10.....	14	70.00	18.....	20	80.00	21.....	12	66.00
10.....	10	50.00	18.....	20	80.00	21.....	12	66.00
10.....	18	90.00	18.....	20	80.00	21.....	12	66.00
10.....	18	90.00	18.....	21	84.00	21.....	12	66.00
10.....	18	90.00	18.....	20	65.00	21.....	13	72.00
10.....	18	90.00	18.....	20	80.00	21.....	13	70.00
11.....	26	199.00	18.....	20	80.00	21.....	222	1,801.00

PORT OF PLATTSBURG, N. Y.—Continued.

Pulp woods imported from Canada into the district of Champlain, port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

[Entered free of duty.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1908.	<i>Cords.</i>		1908.	<i>Cords.</i>		1908.	<i>Cords.</i>	
Feb. 22.....	15	\$80.00	Feb. 28.....	20	\$80.00	Mar. 5.....	12	\$80.00
22.....	12	66.00	28.....	12	72.00	5.....	12	66.00
22.....	20	80.00	28.....	12	66.00	5.....	12	66.00
22.....	20	80.00	28.....	9	50.00	5.....	12	72.00
22.....	20	80.00	28.....	12	66.00	5.....	12	66.00
22.....	21	84.00	28.....	12	66.00	5.....	12	50.00
22.....	20	80.00	28.....	12	66.00	5.....	12	60.00
22.....	13	52.00	28.....	10	50.00	5.....	9	50.00
22.....	22	88.00	28.....	20	100.00	5.....	10	55.00
22.....	20	80.00	28.....	20	65.00	5.....	170	1,195.00
22.....	22	88.00	28.....	20	65.00	6.....	20	80.00
22.....	9	50.00	28.....	248	1,481.00	6.....	20	80.00
22.....	9	50.00	28.....	218	1,330.00	6.....	21	84.00
22.....	12	66.00	29.....	10	70.00	6.....	10	50.00
22.....	12	66.00	29.....	20	80.00	6.....	12	60.00
22.....	80	98.00	29.....	10	70.00	6.....	12	66.00
22.....	80	98.00	29.....	10	70.00	6.....	30	98.00
22.....	20	80.00	29.....	13	73.00	6.....	14	70.00
22.....	20	80.00	29.....	13	75.00	6.....	14	70.00
24.....	20	98.00	29.....	11	62.00	6.....	325	2,034.00
24.....	20	65.00	29.....	10	55.00	7.....	10	55.00
24.....	20	98.00	29.....	20	100.00	7.....	15	98.00
24.....	13	65.00	Mar. 2.....	20	80.00	7.....	30	98.00
24.....	13	91.00	2.....	21	84.00	7.....	10	40.00
24.....	20	180.00	2.....	20	80.00	7.....	166	1,024.00
24.....	10	80.00	2.....	20	80.00	9.....	30	98.00
24.....	20	80.00	2.....	12	84.00	9.....	10	80.00
24.....	20	160.00	2.....	12	60.00	9.....	10	50.00
24.....	20	80.00	2.....	10	50.00	9.....	10	40.00
24.....	20	80.00	2.....	10	50.00	9.....	18	90.00
24.....	21	84.00	2.....	10	50.00	9.....	10	50.00
24.....	20	80.00	2.....	12	60.00	9.....	20	80.00
24.....	20	80.00	2.....	22	88.00	9.....	681	4,132.00
24.....	20	80.00	2.....	21	84.00	10.....	20	80.00
24.....	20	80.00	2.....	20	100.00	10.....	20	80.00
24.....	20	80.00	2.....	20	80.00	10.....	21	84.00
24.....	20	80.00	2.....	21	82.00	10.....	20	80.00
24.....	10	50.00	2.....	11	61.00	10.....	11	74.00
24.....	10	50.00	2.....	12	66.00	10.....	21	84.00
24.....	228	1,229.00	2.....	11	61.00	10.....	20	80.00
25.....	20	80.00	2.....	843	5,270.00	10.....	10	40.00
25.....	12	60.00	3.....	10	60.00	10.....	10	55.00
25.....	20	80.00	3.....	11	61.00	10.....	12	66.00
25.....	10	50.00	3.....	11	61.00	10.....	12	66.00
25.....	12	66.00	3.....	10	55.00	10.....	12	66.00
25.....	12	66.00	3.....	10	55.00	10.....	12	66.00
25.....	12	66.00	3.....	10	55.00	10.....	12	66.00
25.....	12	66.00	3.....	12	66.00	10.....	20	80.00
25.....	12	66.00	3.....	9	50.00	10.....	379	2,544.00
25.....	12	66.00	3.....	18	99.00	10.....	504	4,392.00
25.....	12	66.00	3.....	10	50.00	11.....	10	50.00
25.....	12	66.00	3.....	12	60.00	11.....	10	50.00
25.....	10	40.00	3.....	10	60.00	11.....	10	50.00
25.....	20	80.00	3.....	316	2,086.00	11.....	12	66.00
25.....	21	84.00	4.....	88	517.00	11.....	12	66.00
25.....	10	50.00	4.....	20	80.00	11.....	12	66.00
25.....	20	80.00	4.....	12	66.00	11.....	12	66.00
26.....	20	80.00	4.....	12	66.00	11.....	12	66.00
26.....	10	50.00	4.....	10	30.00	11.....	12	66.00
26.....	10	50.00	4.....	20	65.00	11.....	12	66.00
26.....	10	50.00	4.....	20	80.00	11.....	12	66.00
26.....	11	55.00	4.....	22	88.00	11.....	12	66.00
26.....	12	72.00	4.....	20	80.00	11.....	9	50.00
26.....	20	90.00	4.....	20	160.00	11.....	20	80.00
26.....	13	73.00	4.....	21	84.00	11.....	10	40.00
26.....	22	124.00	4.....	12	66.00	11.....	11	46.00
27.....	13	73.00	4.....	12	66.00	11.....	8	40.00
27.....	20	80.00	5.....	21	84.00	11.....	30	98.00
27.....	130	890.00	5.....	20	80.00	11.....	10	80.00
28.....	20	160.00	5.....	20	80.00	11.....	10	80.00
28.....	20	80.00	5.....	12	66.00	12.....	20	80.00
28.....	20	100.00	5.....	12	66.00	12.....	21	84.00
28.....	20	80.00	5.....	18	99.00	12.....	20	80.00
28.....	20	80.00	5.....	12	66.00	12.....	21	84.00
28.....	20	80.00	5.....	12	66.00	12.....	20	80.00

PORT OF PLATTSBURG, N. Y.—Continued.

Pulp woods imported from Canada into the district of Champlain, port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

[Entered free of duty.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1908.	<i>Cords.</i>		1908.	<i>Cords.</i>		1908.	<i>Cords.</i>	
Mar. 12.....	10	\$40.00	Mar. 16.....	10	\$55.00	Mar. 20.....	20	\$160.00
12.....	20	80.00	16.....	20	80.00	20.....	10	65.00
12.....	20	80.00	16.....	14	101.00	20.....	12	66.00
12.....	21	84.00	16.....	10	80.00	20.....	12	66.00
12.....	21	84.00	16.....	20	80.00	20.....	12	66.00
12.....	221	1,307.00	16.....	20	80.00	20.....	9	50.00
13.....	12	66.00	16.....	20	80.00	20.....	18	99.00
13.....	12	66.00	16.....	20	80.00	20.....	12	64.00
13.....	12	66.00	16.....	21	84.00	20.....	12	66.00
13.....	12	66.00	16.....	21	84.00	20.....	12	66.00
13.....	12	66.00	16.....	20	80.00	20.....	12	66.00
13.....	12	66.00	16.....	20	80.00	20.....	12	66.00
13.....	9	50.00	16.....	30	240.00	20.....	12	66.00
13.....	12	60.00	16.....	21	84.00	20.....	12	66.00
13.....	12	72.00	16.....	10	80.00	20.....	12	66.00
13.....	11	55.00	16.....	20	80.00	20.....	12	66.00
13.....	12	72.00	16.....	21	84.00	20.....	12	66.00
13.....	10	40.00	16.....	21	84.00	20.....	12	66.00
13.....	10	40.00	16.....	20	80.00	20.....	12	66.00
13.....	12	66.00	16.....	9	50.00	20.....	12	66.00
13.....	12	66.00	16.....	30	165.00	20.....	12	66.00
13.....	10	40.00	16.....	21	84.00	20.....	12	66.00
13.....	10	50.00	16.....	27	96.00	20.....	12	66.00
13.....	10	50.00	16.....	561	3,261.00	20.....	12	66.00
13.....	10	50.00	17.....	18	99.00	20.....	12	66.00
13.....	10	50.00	17.....	12	66.00	20.....	12	66.00
13.....	12	66.00	17.....	12	66.00	20.....	10	50.00
13.....	18	99.00	17.....	12	66.00	20.....	13	65.00
13.....	12	66.00	17.....	12	66.00	20.....	10	50.00
13.....	12	66.00	17.....	10	60.00	20.....	12	72.00
13.....	12	66.00	17.....	9	50.00	20.....	12	60.00
13.....	12	66.00	17.....	12	66.00	20.....	10	50.00
13.....	10	70.00	17.....	12	60.00	20.....	10	50.00
13.....	10	60.00	17.....	12	72.00	20.....	10	50.00
13.....	20	80.00	17.....	12	72.00	20.....	256	1,443.00
13.....	10	80.00	17.....	12	72.00	21.....	50	370.00
13.....	10	80.00	17.....	12	60.00	21.....	12	66.00
13.....	10	80.00	17.....	12	66.00	21.....	10	50.00
13.....	22	66.00	17.....	12	66.00	21.....	16	50.00
13.....	403	2,462.00	17.....	12	66.00	21.....	20	80.00
14.....	10	40.00	17.....	12	66.00	21.....	22	66.00
14.....	20	80.00	17.....	9	50.00	21.....	20	80.00
14.....	12	66.00	17.....	110	700.00	21.....	20	80.00
14.....	20	80.00	17.....	114	633.00	21.....	20	80.00
14.....	10	80.00	17.....	20	70.00	21.....	20	80.00
14.....	10	80.00	17.....	10	40.00	21.....	10	80.00
14.....	10	80.00	17.....	20	80.00	21.....	10	80.00
14.....	10	80.00	17.....	20	65.00	21.....	10	55.00
14.....	20	65.00	17.....	20	65.00	23.....	20	65.00
14.....	20	65.00	17.....	30	96.00	23.....	10	55.00
14.....	12	66.00	17.....	286	1,773.00	23.....	12	66.00
14.....	12	66.00	19.....	20	80.00	23.....	12	66.00
14.....	12	66.00	19.....	21	84.00	23.....	12	66.00
14.....	12	72.00	19.....	20	80.00	23.....	10	40.00
14.....	10	60.00	19.....	21	84.00	23.....	20	80.00
14.....	12	60.00	19.....	10	40.00	23.....	30	98.00
14.....	12	66.00	19.....	21	84.00	23.....	20	65.00
14.....	10	50.00	19.....	21	84.00	23.....	30	98.00
14.....	10	50.00	19.....	21	84.00	23.....	30	98.00
14.....	10	50.00	19.....	12	66.00	23.....	30	98.00
14.....	10	50.00	19.....	12	66.00	23.....	10	70.00
14.....	10	50.00	19.....	12	66.00	23.....	20	80.00
14.....	252	1,662.00	19.....	18	99.00	23.....	9	50.00
16.....	21	84.00	19.....	12	66.00	23.....	12	66.00
16.....	20	80.00	19.....	9	50.00	23.....	20	80.00
16.....	10	50.00	19.....	12	66.00	23.....	20	80.00
16.....	10	50.00	19.....	12	66.00	23.....	20	80.00
16.....	10	50.00	19.....	12	66.00	23.....	22	66.00
16.....	12	60.00	19.....	12	66.00	23.....	10	80.00
16.....	12	60.00	20.....	21	84.00	23.....	10	80.00
16.....	12	66.00	20.....	22	88.00	23.....	10	80.00
16.....	9	40.00	20.....	21	84.00	23.....	20	160.00
16.....	12	72.00	20.....	20	80.00	23.....	20	80.00
16.....	12	66.00	20.....	20	80.00	23.....	20	80.00
16.....	10	56.00	20.....	21	84.00	23.....	528	3,164.00
16.....	11	59.00	20.....	20	80.00	24.....	10	80.00

PORT OF PLATTSBURG, N. Y.—Continued.

Pulp woods imported from Canada into the district of Champlain, port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

[Entered free of duty.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1908.	Cords.		1908.	Cords.		1908.	Cords.	
Mar. 24.....	20	\$160.00	Mar. 27.....	20	\$80.00	Mar. 30.....	10	\$50.00
24.....	30	240.00	27.....	18	80.00	30.....	10	50.00
24.....	20	80.00	27.....	12	66.00	30.....	10	50.00
24.....	21	84.00	27.....	12	66.00	30.....	21	84.00
24.....	21	84.00	27.....	12	66.00	30.....	10	40.00
24.....	20	80.00	27.....	12	66.00	30.....	21	84.00
24.....	21	84.00	27.....	12	66.00	30.....	20	80.00
24.....	20	80.00	27.....	12	66.00	30.....	21	84.00
24.....	20	80.00	27.....	10	70.00	30.....	10	40.00
24.....	12	48.00	27.....	12	66.00	30.....	21	84.00
24.....	12	66.00	27.....	12	66.00	30.....	20	80.00
24.....	12	66.00	27.....	12	66.00	30.....	21	84.00
24.....	12	66.00	27.....	12	66.00	30.....	10	65.00
24.....	12	66.00	27.....	12	66.00	30.....	10	32.00
24.....	12	66.00	27.....	12	66.00	30.....	20	80.00
24.....	12	66.00	27.....	12	66.00	30.....	30	98.00
24.....	12	66.00	27.....	12	66.00	30.....	10	80.00
24.....	12	66.00	27.....	12	66.00	30.....	10	80.00
24.....	10	55.00	27.....	12	66.00	30.....	10	80.00
24.....	12	72.00	27.....	12	66.00	30.....	10	80.00
24.....	12	60.00	27.....	12	66.00	30.....	10	65.00
24.....	12	66.00	27.....	18	99.00	30.....	10	70.00
24.....	18	99.00	27.....	9	50.00	30.....	20	80.00
24.....	12	66.00	27.....	436	2,550.00	30.....	20	80.00
24.....	12	66.00	28.....	484	1,730.00	30.....	20	80.00
24.....	12	66.00	28.....	10	40.00	30.....	20	80.00
25.....	30	98.00	28.....	20	80.00	30.....	10	40.00
25.....	20	65.00	28.....	20	80.00	30.....	10	40.00
25.....	20	65.00	28.....	20	80.00	30.....	20	80.00
25.....	10	50.00	28.....	20	80.00	30.....	361	2,351.00
25.....	20	80.00	28.....	10	40.00	30.....	164	938.00
25.....	20	80.00	28.....	10	80.00	31.....	10	44.00
25.....	12	72.00	28.....	10	80.00	31.....	22	66.00
25.....	22	88.00	28.....	20	88.00	31.....	22	66.00
25.....	20	80.00	28.....	13	78.00	31.....	10	80.00
25.....	10	55.00	28.....	12	78.00	31.....	10	80.00
25.....	10	55.00	28.....	12	66.00	31.....	10	80.00
25.....	233	1,427.00	28.....	12	66.00	31.....	10	40.00
25.....	315	1,756.00	28.....	12	66.00	31.....	10	40.00
26.....	168	977.00	28.....	10	55.00	31.....	10	60.00
26.....	20	80.00	29.....	10	55.00	31.....	20	80.00
26.....	10	40.00	28.....	9	50.00	31.....	12	66.00
26.....	10	40.00	28.....	12	66.00	31.....	12	66.00
26.....	21	84.00	28.....	12	66.00	31.....	9	66.00
26.....	21	84.00	28.....	12	66.00	31.....	12	66.00
26.....	20	80.00	28.....	12	66.00	31.....	12	66.00
26.....	20	80.00	28.....	12	66.00	31.....	12	66.00
26.....	20	80.00	28.....	10	55.00	31.....	9	50.00
26.....	21	84.00	28.....	10	50.00	31.....	12	66.00
26.....	12	66.00	28.....	10	50.00	31.....	12	66.00
26.....	12	66.00	28.....	10	50.00	31.....	12	72.00
26.....	12	66.00	30.....	12	60.00	31.....	10	50.00
26.....	12	66.00	30.....	10	40.00	31.....	10	50.00
26.....	12	66.00	30.....	22	66.00	31.....	10	55.00
26.....	12	66.00	30.....	20	60.00	31.....	15	75.00
26.....	12	66.00	30.....	20	65.00	Apr. 1.....	20	80.00
26.....	12	66.00	30.....	10	50.00	1.....	10	55.00
26.....	12	66.00	30.....	12	66.00	1.....	10	70.00
26.....	18	99.00	30.....	11	61.00	1.....	10	70.00
26.....	12	72.00	30.....	12	66.00	1.....	10	60.00
26.....	12	60.00	30.....	12	66.00	1.....	20	98.00
26.....	12	72.00	30.....	20	80.00	1.....	10	55.00
26.....	10	60.00	30.....	20	80.00	1.....	20	65.00
26.....	12	72.00	30.....	20	80.00	1.....	20	65.00
26.....	12	72.00	30.....	10	55.00	1.....	20	80.00
26.....	12	66.00	30.....	12	66.00	1.....	10	65.00
26.....	12	66.00	30.....	12	66.00	1.....	20	88.00
26.....	10	40.00	30.....	12	66.00	1.....	18	95.00
26.....	10	40.00	30.....	12	66.00	1.....	20	88.00
26.....	20	80.00	30.....	12	66.00	1.....	10	60.00
27.....	11	77.00	30.....	12	66.00	1.....	12	60.00
27.....	20	90.00	30.....	12	66.00	1.....	10	60.00
27.....	10	70.00	30.....	12	66.00	1.....	12	66.00
27.....	10	70.00	30.....	18	99.00	1.....	12	60.00
27.....	22	98.00	30.....	12	60.00	1.....	12	66.00

PORT OF PLATTSBURG, N. Y.—Continued.

Pulp woods imported from Canada into the district of Champlain, port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

[Entered free of duty.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1908.	<i>Cords.</i>		1908.	<i>Cords.</i>		1908.	<i>Cords.</i>	
Apr. 1.....	12	\$65.00	Apr. 3.....	12	\$72.00	Apr. 6.....	24	\$96.00
1.....	12	65.00	3.....	10	60.00	6.....	24	96.00
1.....	12	65.00	3.....	13	65.00	6.....	24	96.00
1.....	12	66.00	3.....	12	66.00	6.....	24	96.00
1.....	18	99.00	3.....	10	50.00	6.....	10	33.00
1.....	12	66.00	3.....	12	66.00	6.....	20	80.00
1.....	10	60.00	3.....	12	66.00	6.....	20	80.00
1.....	10	80.00	3.....	17	85.00	6.....	15	68.00
1.....	10	80.00	3.....	178	1,104.00	6.....	20	80.00
1.....	10	80.00	4.....	130	806.00	6.....	20	80.00
1.....	10	40.00	4.....	17	85.00	6.....	16	72.00
1.....	13	70.00	4.....	10	65.00	6.....	20	90.00
1.....	20	80.00	4.....	12	78.00	6.....	20	80.00
1.....	20	80.00	4.....	20	80.00	6.....	20	90.00
1.....	13	40.00	4.....	20	90.00	6.....	20	90.00
1.....	20	80.00	4.....	8	36.00	6.....	20	90.00
1.....	20	90.00	4.....	20	90.00	6.....	20	90.00
1.....	10	50.00	4.....	20	90.00	6.....	20	110.00
1.....	20	80.00	4.....	20	90.00	6.....	18	135.00
1.....	10	80.00	4.....	10	70.00	6.....	10	80.00
1.....	10	70.00	4.....	20	90.00	6.....	10	80.00
1.....	10	45.00	4.....	20	90.00	6.....	10	80.00
1.....	20	90.00	4.....	12	60.00	6.....	10	40.00
1.....	20	90.00	4.....	10	55.00	6.....	20	80.00
1.....	20	90.00	4.....	10	80.00	6.....	20	80.00
1.....	736	4,178.00	4.....	10	80.00	6.....	20	90.00
2.....	260	1,648.00	4.....	20	90.00	6.....	12	50.00
2.....	20	90.00	4.....	20	65.00	6.....	563	3,312.00
2.....	10	44.00	4.....	20	90.00	7.....	231	1,477.00
2.....	10	80.00	4.....	20	90.00	7.....	9	50.00
2.....	10	80.00	4.....	30	98.00	7.....	10	80.00
2.....	10	65.00	4.....	10	80.00	7.....	10	80.00
2.....	10	50.00	4.....	10	80.00	7.....	10	80.00
2.....	18	99.00	4.....	10	80.00	7.....	10	80.00
2.....	9	50.00	4.....	10	80.00	7.....	10	80.00
2.....	12	66.00	4.....	10	80.00	7.....	10	70.00
2.....	12	66.00	4.....	10	80.00	7.....	22	66.00
2.....	12	66.00	4.....	10	80.00	7.....	20	90.00
2.....	12	66.00	4.....	10	80.00	7.....	20	90.00
2.....	12	66.00	4.....	10	80.00	7.....	20	90.00
2.....	12	72.00	4.....	10	80.00	7.....	10	45.00
2.....	12	60.00	4.....	20	80.00	7.....	20	90.00
2.....	10	60.00	4.....	20	80.00	7.....	20	90.00
2.....	10	55.00	4.....	21	84.00	7.....	10	45.00
2.....	10	50.00	4.....	20	80.00	7.....	20	90.00
2.....	10	50.00	4.....	21	84.00	7.....	20	90.00
2.....	10	50.00	4.....	20	98.00	7.....	14	84.00
2.....	20	90.00	4.....	12	72.00	7.....	10	45.00
3.....	10	50.00	4.....	10	50.00	7.....	10	50.00
3.....	18	99.00	4.....	10	50.00	7.....	10	50.00
3.....	10	40.00	6.....	20	65.00	7.....	12	66.00
3.....	20	80.00	6.....	24	78.00	7.....	12	66.00
3.....	12	60.00	6.....	30	98.00	7.....	12	66.00
3.....	20	80.00	6.....	20	65.00	7.....	12	66.00
3.....	20	80.00	6.....	10	65.00	7.....	12	66.00
3.....	20	80.00	6.....	10	70.00	7.....	12	66.00
3.....	21	84.00	6.....	12	36.00	7.....	15	73.00
3.....	20	80.00	6.....	18	135.00	7.....	10	60.00
3.....	20	80.00	6.....	10	80.00	7.....	12	72.00
3.....	12	66.00	6.....	10	40.00	7.....	12	72.00
3.....	12	66.00	6.....	10	80.00	7.....	12	66.00
3.....	12	66.00	6.....	20	80.00	7.....	12	66.00
3.....	18	99.00	6.....	12	78.00	7.....	12	66.00
3.....	18	99.00	6.....	14	70.00	7.....	9	50.00
3.....	12	66.00	6.....	10	40.00	7.....	12	66.00
3.....	12	66.00	6.....	18	99.00	7.....	20	80.00
3.....	11	61.00	6.....	9	50.00	7.....	20	120.00
3.....	12	66.00	6.....	12	66.00	7.....	12	78.00
3.....	11	61.00	6.....	12	66.00	7.....	10	40.00
3.....	10	50.00	6.....	12	66.00	7.....	20	80.00
3.....	10	50.00	6.....	12	66.00	7.....	20	80.00
3.....	10	50.00	6.....	12	66.00	8.....	20	90.00
3.....	10	50.00	6.....	12	66.00	8.....	10	70.00
3.....	10	50.00	6.....	18	99.00	8.....	12	66.00
3.....	10	50.00	6.....	12	66.00	8.....	10	80.00

PORT OF PLATTSBURG, N. Y.—Continued.

Pulp woods imported from Canada into the district of Champlain, port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

[Entered free of duty.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1908.	<i>Cords.</i>		1908.	<i>Cords.</i>		1908.	<i>Cords.</i>	
Apr. 15.....	20	\$90.00	Apr. 20.....	10	\$55.00	Apr. 24.....	10	\$40.00
15.....	10	45.00	20.....	30	165.00	24.....	10	55.00
15.....	20	90.00	20.....	10	50.00	24.....	10	50.00
15.....	10	45.00	20.....	10	51.00	24.....	9	50.00
15.....	20	90.00	20.....	12	60.00	24.....	12	66.00
15.....	18	99.00	20.....	12	66.00	24.....	10	40.00
15.....	9	50.00	20.....	12	66.00	24.....	10	52.00
16.....	20	110.00	20.....	12	66.00	24.....	20	80.00
16.....	10	60.00	20.....	10	55.00	24.....	20	80.00
16.....	10	70.00	20.....	10	80.00	24.....	21	84.00
16.....	12	66.00	20.....	20	80.00	25.....	39	198.00
16.....	12	66.00	20.....	21	84.00	25.....	20	80.00
16.....	12	72.00	20.....	30	98.00	25.....	12	60.00
16.....	12	66.00	20.....	10	60.00	25.....	30	165.00
16.....	10	60.00	20.....	20	80.00	25.....	30	165.00
16.....	12	66.00	20.....	10	40.00	25.....	10	55.00
16.....	9	50.00	20.....	10	40.00	25.....	21	84.00
16.....	12	66.00	20.....	21	84.00	25.....	20	80.00
16.....	20	80.00	21.....	92	559.00	25.....	10	50.00
16.....	20	80.00	21.....	10	55.00	25.....	12	66.00
16.....	10	65.00	21.....	12	66.00	25.....	12	66.00
16.....	10	55.00	21.....	12	66.00	25.....	11	63.00
16.....	10	55.00	21.....	12	66.00	25.....	18	99.00
16.....	10	40.00	21.....	18	99.00	25.....	12	72.00
16.....	20	80.00	21.....	18	99.00	25.....	12	72.00
16.....	20	80.00	21.....	11	53.00	25.....	12	66.00
16.....	20	80.00	21.....	12	72.00	25.....	12	66.00
16.....	20	80.00	21.....	12	72.00	25.....	12	66.00
16.....	10	55.00	21.....	12	72.00	25.....	12	66.00
16.....	10	55.00	21.....	20	80.00	25.....	12	66.00
16.....	10	70.00	21.....	10	55.00	25.....	12	66.00
16.....	10	70.00	21.....	21	84.00	25.....	11	61.00
16.....	10	80.00	21.....	12	66.00	27.....	21	84.00
16.....	10	80.00	21.....	12	72.00	27.....	10	40.00
16.....	10	80.00	21.....	12	72.00	27.....	10	48.00
16.....	18	99.00	21.....	12	72.00	27.....	12	66.00
17.....	10	80.00	21.....	12	72.00	27.....	12	66.00
17.....	10	55.00	21.....	12	72.00	27.....	12	66.00
17.....	20	80.00	21.....	12	72.00	27.....	12	66.00
17.....	10	65.00	21.....	12	72.00	27.....	12	66.00
17.....	9	50.00	21.....	12	66.00	27.....	9	50.00
17.....	12	66.00	21.....	40	220.00	27.....	12	60.00
17.....	12	66.00	21.....	20	65.00	27.....	20	80.00
17.....	12	66.00	21.....	20	65.00	27.....	10	40.00
17.....	12	66.00	21.....	10	33.00	27.....	20	80.00
17.....	18	99.00	21.....	10	60.00	27.....	10	70.00
17.....	10	60.00	21.....	10	50.00	27.....	10	40.00
17.....	440	2,746.00	21.....	20	80.00	27.....	10	33.00
18.....	20	110.00	21.....	20	80.00	27.....	20	80.00
18.....	30	165.00	21.....	10	40.00	27.....	10	50.00
18.....	12	72.00	22.....	40	220.00	27.....	10	40.00
18.....	12	72.00	22.....	125	770.00	27.....	20	80.00
18.....	9	50.00	22.....	10	65.00	27.....	10	40.00
18.....	12	66.00	22.....	20	30.00	27.....	20	80.00
18.....	12	66.00	22.....	10	40.00	27.....	10	40.00
18.....	12	66.00	22.....	11	53.00	27.....	20	80.00
18.....	10	40.00	22.....	11	53.00	27.....	30	98.00
18.....	10	55.00	23.....	10	70.00	27.....	20	80.00
18.....	20	80.00	23.....	10	70.00	27.....	10	40.00
18.....	20	80.00	23.....	10	70.00	27.....	12	36.00
18.....	30	98.00	23.....	10	44.00	27.....	12	60.00
18.....	20	65.00	23.....	10	55.00	27.....	20	80.00
18.....	20	80.00	23.....	9	50.00	27.....	12	66.00
18.....	21	84.00	23.....	12	72.00	27.....	10	55.00
18.....	10	40.00	23.....	12	66.00	27.....	20	80.00
18.....	10	40.00	23.....	12	66.00	27.....	30	80.00
18.....	10	40.00	23.....	12	72.00	27.....	10	40.00
18.....	10	55.00	23.....	12	66.00	27.....	404	2,408.00
20.....	322	1,879.00	23.....	12	66.00	28.....	11	59.00
20.....	30	165.00	23.....	12	66.00	28.....	11	62.00
20.....	10	80.00	23.....	12	66.00	28.....	10	60.00
20.....	10	45.00	23.....	9	50.00	28.....	9	50.00
20.....	10	45.00	23.....	18	99.00	28.....	12	66.00
20.....	10	40.00	23.....	12	72.00	28.....	10	60.00
20.....	20	90.00	23.....	151	910.00	28.....	10	60.00
20.....	10	45.00	24.....	208	1,257.00	28.....	12	66.00

PORT OF PLATTSBURG, N. Y.—Continued.

Pulp woods imported from Canada into the district of Champlain, port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

[Entered free of duty.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1908.	<i>Cords.</i>		1908.	<i>Cords.</i>		1908.	<i>Cords.</i>	
Apr. 28.....	9	\$50.00	May 4.....	20	\$90.00	May 9.....	20	\$90.00
28.....	12	65.00	4.....	30	98.00	9.....	20	80.00
28.....	10	40.00	4.....	20	65.00	9.....	12	78.00
28.....	20	65.00	4.....	12	60.00	9.....	10	40.00
28.....	15	75.00	4.....	10	40.00	9.....	20	80.00
28.....	80	515.00	4.....	12	48.00	9.....	20	80.00
29.....	214	1,207.00	4.....	20	60.00	9.....	20	80.00
29.....	72	822.00	4.....	20	60.00	9.....	20	80.00
29.....	14	70.00	4.....	15	45.00	9.....	21	84.00
29.....	10	33.00	4.....	20	65.00	9.....	10	40.00
29.....	10	65.00	4.....	10	40.00	9.....	20	80.00
29.....	10	40.00	4.....	40	220.00	9.....	20	80.00
29.....	10	40.00	4.....	223	1,375.00	9.....	20	80.00
29.....	21	84.00	5.....	12	66.00	9.....	12	66.00
29.....	20	80.00	5.....	20	80.00	9.....	12	66.00
29.....	12	60.00	5.....	12	60.00	11.....	20	65.00
30.....	21	84.00	5.....	12	66.00	11.....	12	60.00
30.....	11	55.00	5.....	12	66.00	11.....	10	40.00
30.....	10	40.00	5.....	11	63.00	11.....	10	40.00
30.....	21	84.00	5.....	20	80.00	11.....	20	80.00
30.....	10	33.00	5.....	10	40.00	11.....	21	84.00
30.....	10	50.00	5.....	12	66.00	11.....	20	80.00
30.....	12	66.00	5.....	18	99.00	11.....	20	80.00
30.....	12	66.00	5.....	12	66.00	11.....	20	80.00
30.....	12	66.00	5.....	12	66.00	11.....	21	84.00
30.....	12	66.00	5.....	12	66.00	11.....	20	80.00
30.....	12	72.00	5.....	12	66.00	11.....	20	80.00
30.....	10	60.00	5.....	12	66.00	11.....	20	80.00
30.....	18	99.00	5.....	20	80.00	11.....	21	84.00
30.....	12	66.00	5.....	12	66.00	11.....	10	40.00
30.....	12	66.00	5.....	10	40.00	11.....	20	80.00
30.....	12	66.00	5.....	10	33.00	11.....	9	50.00
30.....	12	66.00	5.....	21	84.00	11.....	12	66.00
30.....	12	66.00	5.....	21	84.00	11.....	12	66.00
30.....	12	66.00	5.....	14	91.00	11.....	12	66.00
May 1.....	12	72.00	5.....	20	80.00	11.....	12	66.00
1.....	9	50.00	5.....	10	45.00	11.....	12	66.00
1.....	20	90.00	5.....	20	90.00	11.....	12	66.00
1.....	9	45.00	5.....	24	96.00	11.....	12	66.00
1.....	10	55.00	5.....	24	96.00	11.....	12	66.00
1.....	20	100.00	6.....	20	65.00	11.....	12	66.00
1.....	12	92.00	6.....	20	65.00	11.....	20	80.00
1.....	12	66.00	6.....	15	45.00	11.....	12	66.00
1.....	10	52.00	6.....	100	570.00	11.....	12	66.00
1.....	12	66.00	6.....	184	1,094.00	11.....	12	66.00
1.....	18	90.00	7.....	20	65.00	11.....	12	66.00
1.....	20	100.00	7.....	24	96.00	11.....	10	33.00
1.....	20	80.00	7.....	12	66.00	11.....	30	90.00
1.....	10	40.00	7.....	12	66.00	11.....	20	80.00
1.....	20	80.00	7.....	12	66.00	11.....	20	80.00
1.....	12	48.00	7.....	12	66.00	11.....	20	80.00
1.....	20	90.00	7.....	12	66.00	11.....	20	80.00
1.....	20	65.00	7.....	18	99.00	11.....	20	80.00
1.....	10	55.00	7.....	12	66.00	11.....	20	80.00
1.....	216	1,216.00	7.....	20	90.00	11.....	20	80.00
2.....	20	80.00	7.....	20	90.00	11.....	20	80.00
2.....	20	80.00	7.....	20	90.00	11.....	20	80.00
2.....	20	80.00	7.....	20	90.00	11.....	20	80.00
2.....	10	33.00	7.....	12	48.00	12.....	140	800.00
2.....	12	66.00	7.....	24	96.00	12.....	266	1,806.00
2.....	20	80.00	7.....	24	96.00	12.....	9	40.00
2.....	20	80.00	7.....	24	96.00	12.....	10	45.00
2.....	20	80.00	7.....	24	96.00	12.....	20	80.00
2.....	10	40.00	7.....	24	96.00	12.....	20	80.00
4.....	9	50.00	7.....	20	90.00	12.....	20	80.00
4.....	18	99.00	7.....	10	55.00	12.....	21	84.00
4.....	12	66.00	7.....	10	55.00	12.....	12	60.00
4.....	12	66.00	7.....	164	906.00	13.....	10	70.00
4.....	12	66.00	8.....	130	816.00	13.....	16	45.00
4.....	12	66.00	8.....	9	71.00	13.....	20	65.00
4.....	12	66.00	9.....	15	45.00	13.....	10	40.00
4.....	20	90.00	9.....	10	33.00	13.....	12	66.00
4.....	20	90.00	9.....	20	80.00	13.....	12	66.00
4.....	20	90.00	9.....	30	155.00	13.....	9	50.00

PORT OF PLATTSBURG, N. Y.—Continued.

Pulp woods imported from Canada into the district of Champlain, port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

[Entered free of duty.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1908.	<i>Cords.</i>		1908.	<i>Cords.</i>		1908.	<i>Cords.</i>	
May 13.....	12	\$46.00	May 18.....	20	\$80.00	May 22.....	10	\$40.00
13.....	12	66.00	18.....	10	71.00	22.....	20	80.00
13.....	12	66.00	18.....	20	80.00	22.....	20	80.00
13.....	12	66.00	18.....	22	88.00	22.....	20	80.00
13.....	12	66.00	18.....	24	96.00	22.....	10	40.00
13.....	110	660.00	18.....	22	88.00	22.....	60	360.00
14.....	12	66.00	18.....	22	88.00	23.....	30	180.00
14.....	12	66.00	18.....	10	45.00	23.....	11	92.00
14.....	12	63.00	18.....	10	45.00	23.....	11	86.00
14.....	22	88.00	18.....	20	80.00	23.....	10	40.00
14.....	12	48.00	18.....	12	66.00	23.....	10	40.00
14.....	24	96.00	18.....	71	386.00	23.....	10	40.00
14.....	24	96.00	19.....	10	33.00	23.....	10	40.00
14.....	10	40.00	19.....	10	80.00	23.....	16	40.00
14.....	10	40.00	19.....	22	88.00	23.....	30	96.00
14.....	20	80.00	19.....	24	96.00	23.....	20	66.00
14.....	50	275.00	19.....	24	96.00	23.....	20	90.00
14.....	20	110.00	19.....	12	66.00	23.....	147	900.00
14.....	20	65.00	19.....	12	66.00	25.....	115	875.00
14.....	25	125.00	19.....	12	66.00	25.....	112	560.00
15.....	10	40.00	19.....	12	66.00	25.....	113	565.00
15.....	10	40.00	19.....	12	66.00	25.....	113	565.00
15.....	21	84.00	19.....	12	66.00	25.....	10	55.00
15.....	20	80.00	19.....	12	66.00	25.....	11	55.00
15.....	20	80.00	19.....	12	66.00	25.....	10	33.00
15.....	10	40.00	19.....	12	66.00	25.....	22	88.00
15.....	20	80.00	19.....	12	66.00	25.....	15	75.00
15.....	20	80.00	19.....	12	66.00	25.....	12	60.00
15.....	10	40.00	19.....	12	66.00	25.....	20	80.00
15.....	18	99.00	19.....	18	99.00	25.....	10	40.00
15.....	9	50.00	19.....	18	99.00	25.....	20	80.00
15.....	12	66.00	19.....	18	99.00	25.....	12	66.00
15.....	12	66.00	20.....	30	98.00	25.....	12	66.00
15.....	12	66.00	20.....	30	98.00	25.....	10	52.00
15.....	12	66.00	20.....	12	48.00	25.....	12	66.00
15.....	12	60.00	20.....	22	88.00	25.....	12	66.00
15.....	153	876.00	20.....	22	88.00	25.....	12	88.00
16.....	12	92.00	20.....	12	66.00	25.....	11	92.00
16.....	12	54.00	20.....	20	120.00	25.....	11	92.00
16.....	20	90.00	20.....	182	1,154.00	26.....	20	80.00
16.....	20	90.00	21.....	12	66.00	26.....	20	80.00
16.....	20	90.00	21.....	12	66.00	26.....	50	295.00
16.....	20	90.00	21.....	12	66.00	26.....	120	725.00
16.....	20	90.00	21.....	12	66.00	27.....	15	75.00
16.....	20	90.00	21.....	12	66.00	27.....	10	55.00
16.....	12	66.00	21.....	10	40.00	27.....	10	33.00
16.....	12	66.00	21.....	20	80.00	27.....	12	60.00
16.....	12	66.00	21.....	20	80.00	27.....	12	60.00
16.....	12	92.00	21.....	20	80.00	27.....	12	78.00
16.....	30	98.00	21.....	20	80.00	27.....	10	40.00
16.....	20	66.00	21.....	20	80.00	27.....	10	40.00
16.....	12	66.00	21.....	20	80.00	27.....	12	62.00
16.....	12	66.00	21.....	20	80.00	27.....	11	63.00
16.....	12	66.00	21.....	21	84.00	27.....	12	66.00
16.....	20	120.00	21.....	20	80.00	27.....	119	595.00
16.....	74	532.00	21.....	12	60.00	27.....	115	578.00
18.....	10	45.00	21.....	83	415.00	28.....	10	40.00
18.....	10	45.00	21.....	10	60.00	28.....	20	80.00
18.....	20	90.00	21.....	166	1,131.00	28.....	20	80.00
18.....	20	90.00	22.....	12	48.00	28.....	11	61.00
18.....	20	90.00	22.....	20	80.00	28.....	12	63.00
18.....	20	90.00	22.....	12	92.00	28.....	12	66.00
18.....	20	90.00	22.....	12	93.00	28.....	12	66.00
18.....	20	90.00	22.....	12	93.00	28.....	12	66.00
18.....	10	45.00	22.....	12	66.00	28.....	11	92.00
18.....	10	69.00	22.....	9	44.00	28.....	12	97.00
18.....	12	66.00	22.....	10	54.00	28.....	10	96.00
18.....	12	66.00	22.....	13	98.00	28.....	12	92.00
18.....	12	66.00	22.....	14	98.00	28.....	12	92.00
18.....	12	92.00	22.....	12	92.00	28.....	10	40.00
18.....	12	92.00	22.....	12	92.00	28.....	11	90.00
18.....	12	92.00	22.....	11	86.00	28.....	11	86.00
18.....	12	92.00	22.....	10	80.00	28.....	20	80.00
18.....	12	92.00	22.....	20	80.00	28.....	20	80.00
18.....	10	70.00	22.....	20	80.00	28.....	10	44.00

PORT OF PLATTSBURG, N. Y.—Continued.

Pulp woods imported from Canada into the district of Champlain, port of Plattsburg, N. Y., during the period January 1, 1907, to June 1, 1908—Continued.

[Entered free of duty.]

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1908.	Cords.		1908.	Cords.		1908.	Cords.	
May 28.....	172	\$939.00	May 29.....	11	\$92.00	May 30.....	10	\$40.00
29.....	44	245.00	29.....	11	92.00	30.....	20	80.00
29.....	80	475.00	29.....	12	92.00	30.....	10	40.00
29.....	12	60.00	29.....	11	86.00	30.....	20	80.00
29.....	10	40.00	29.....	11	86.00	30.....	10	55.00
29.....	20	80.00	30.....	10	40.00	30.....	10	40.00
29.....	10	40.00	30.....	10	40.00			
29.....	10	55.00	30.....	20	80.00	Total...	264, 670	1, 506, 216.00
29.....	12	92.00	30.....	21	84.00			
29.....	12	92.00	30.....	20	80.00			

PULP AND PAPER INVESTIGATION HEARINGS

729821
.A5
1908a

IMPORTATION STATISTICS (CONTINUED)

SELECT COMMITTEE OF HOUSE OF REPRESENTATIVES

JAMES R. MANN, Illinois, *Chairman*

JAMES M. MILLER, Kansas

HENRY T. BANNON, Ohio

WILLIAM H. STAFFORD, Wisconsin

THETUS W. SIMS, Tennessee

WILLIAM H. RYAN, New York

NO. 31

WASHINGTON
GOVERNMENT PRINTING OFFICE
1908

WOOD PULP, PRINT PAPER, ETC.

The following tables, prepared and submitted by the Treasury Department at the request of the Select Committee on Pulp and Paper Investigation and under the direction of the President, are continued from No. 30 of the hearings.

They show the date of arrival, quantity, appraised value, and country of origin of each importation of mechanically ground wood pulp, chemical pulp, unbleached and bleached, filter masse or filter stock, printing paper, and pulp woods specified in paragraphs 393, 395, 396, and 699 of the tariff act of July 24, 1897, together with the duties, including countervailing duties, collected thereon for the period from January 1, 1907, to June 1, 1908. The ports included in this number are as follows: Alburg, East Alburg, Swanton, St. Albans, Richford, Newport, Vt.; Baltimore, Md.; Philadelphia, Pa.; New York, N. Y.; Bridgeport, New London, Conn.; Boston, Mass.; and Bangor, Me.

PORT OF ALBURG, VT.

Detailed statement showing date of arrival, quantity, appraised value, and duties collected on mechanically ground wood pulp imported at Alburg, Vt., from the Dominion of Canada from January 1, 1907, to June 1, 1908, with amount of additional duties collected under proviso to paragraph 393, tariff act of 1897.

Date of arrival.	Quantity.	Appraised value.	Total duties, including increased and additional.	Additional duties under proviso to paragraph 393.	Date of arrival.	Quantity.	Appraised value.	Total duties, including increased and additional.	Additional duties under proviso to paragraph 393.
1907.	Pounds.				1907.	Pounds.			
Jan. 2	35,000	\$200.00	\$33.55	\$4.38	Feb. 1	21,000	\$131.00	\$20.13	\$2.63
3	66,640	417.00	63.86	8.33	4	30,100	173.00	28.84	3.76
3	30,100	173.00	28.84	3.76	7	60,340	347.00	57.82	7.54
3	42,128	448.00	35.11	-----	8	39,200	214.00	37.57	4.90
4	30,100	173.00	28.84	3.76	8	60,200	346.00	57.70	7.53
4	35,000	200.00	33.55	4.38	9	30,100	173.00	28.84	3.76
4	89,460	515.00	85.73	11.18	11	30,100	173.00	28.84	3.76
5	39,200	225.00	37.57	4.90	12	60,200	354.00	57.70	7.53
8	94,080	541.00	90.16	11.76	12	60,200	354.00	57.70	7.53
8	32,720	180.00	31.36	4.09	12	30,100	177.00	28.84	3.76
9	98,700	568.00	94.59	12.34	16	20,300	109.00	19.46	2.54
12	30,100	173.00	28.84	3.76	16	124,600	716.00	119.41	15.58
14	20,160	116.00	19.32	2.52	16	30,100	177.00	28.84	3.76
19	175,700	1,010.00	168.38	21.96	16	141,400	813.00	135.61	17.68
19	39,200	226.00	37.57	4.90	16	55,300	318.00	62.99	6.91
19	29,120	167.00	27.91	3.64	18	25,200	145.00	24.15	3.15
21	30,100	173.00	28.84	3.76	19	85,400	491.00	81.85	10.68
22	61,600	385.00	59.03	7.70	19	126,420	727.00	121.15	15.80
22	32,620	204.00	31.26	4.08	19	45,500	262.00	43.61	5.69
22	55,300	318.00	62.99	6.91	19	30,100	173.00	28.84	3.76
22	39,200	225.00	37.57	4.90	21	59,500	342.00	57.02	7.44
25	30,100	173.00	28.84	3.76	21	20,300	113.00	19.46	2.54
26	20,160	116.00	19.32	2.52	26	174,440	1,012.00	167.18	21.81
26	43,987	467.00	36.66	-----	27	69,300	398.00	66.41	8.66
Total..	1,200,475	7,393.00	1,139.69	139.29	Total..	1,429,400	8,238.00	1,360.86	178.70

Detailed statement showing date of arrival, quantity, appraised value, and duties collected on mechanically ground wood pulp imported at Alburg, Vt., from the Dominion of Canada from January 1, 1907, to June 1, 1908, with amount of additional duties collected under proviso to paragraph 393, tariff act of 1897—Continued.

Date of arrival.	Quantity.	Appraised value.	Total duties, including increased and additional.	Additional duties under proviso to paragraph 393.	Date of arrival.	Quantity.	Appraised value.	Total duties, including increased and additional.	Additional duties under proviso to paragraph 393.
1907.	<i>Pounds.</i>				1907.	<i>Pounds.</i>			
Mar. 1	30,100	\$173.00	\$28.84	\$3.76	July 15	30,702	\$184.00	\$29.43	\$3.84
1	25,200	136.00	24.15	3.15	16	57,600	346.00	48.00	.....
7	19,380	245.00	16.15	.....	16	30,702	184.00	29.43	3.84
22	73,080	853.00	60.90	.....	16	31,816	342.00	30.49	3.98
22	46,620	544.00	38.55	.....	17	134,232	805.00	128.64	16.78
30	26,910	300.00	22.43	.....	20	39,984	240.00	38.32	5.00
Total..	221,290	2,251.00	191.32	6.91	20	28,800	173.00	24.00	.....
Apr. 2	21,528	240.00	17.94	.....	22	24,700	226.00	23.67	3.09
2	42,900	422.00	35.75	.....	22	139,944	840.00	134.11	17.49
3	60,200	346.00	57.70	7.53	23	35,700	214.00	34.21	4.46
4	60,200	346.00	57.70	7.53	23	79,968	490.00	76.64	10.00
5	149,800	861.00	143.50	18.73	23	23,140	226.00	22.17	2.89
6	30,100	173.00	28.84	3.76	23	31,816	342.00	30.49	3.98
9	30,100	173.00	28.84	3.76	26	67,200	336.00	56.83	.85
9	67,888	775.00	56.57	.....	Total..	1,336,477	9,244.00	1,242.29	128.58
9	36,540	413.00	30.45	.....	Aug. 1	78,254	470.00	74.99	9.78
9	34,496	394.00	28.75	.....	3	82,369	401.00	73.77	5.15
9	60,200	346.00	57.70	7.53	3	86,130	351.00	77.98	6.20
11	35,280	416.00	29.40	.....	6	117,810	707.00	112.91	14.73
15	35,280	399.00	29.40	.....	6	42,421	456.00	40.65	5.30
23	35,280	414.00	29.40	.....	6	26,590	286.00	25.48	3.23
24	30,100	173.00	28.84	3.76	6	97,294	973.00	93.24	12.16
Total..	729,890	5,891.00	660.78	52.60	6	91,500	460.00	81.97	5.72
May 4	38,610	367.00	34.96	2.78	8	21,212	229.00	20.33	2.65
7	36,685	367.00	33.21	2.64	9	55,852	513.00	50.56	6.02
11	39,900	229.00	38.24	4.99	9	30,702	184.00	29.43	3.84
13	110,600	636.00	106.00	13.83	13	28,800	173.00	24.00	.....
13	30,100	173.00	28.84	3.76	13	63,632	684.00	60.98	7.96
13	48,000	288.00	40.00	.....	17	57,700	346.00	48.00	.....
14	31,130	303.00	28.18	2.24	22	60,610	606.00	54.87	4.36
18	76,560	734.00	69.31	5.51	29	36,685	367.00	33.21	2.64
21	73,370	734.00	68.42	5.28	30	36,685	367.00	33.21	2.64
23	96,600	570.00	92.58	12.08	30	54,900	302.00	52.61	6.86
24	30,702	184.00	29.43	3.84	Total..	1,069,146	8,384.00	988.19	97.32
24	75,350	718.00	68.22	5.43	Sept. 3	91,350	512.00	87.55	11.42
28	101,388	609.00	97.16	12.67	3	60,609	606.00	54.87	4.36
29	54,230	542.00	49.09	3.10	5	18,291	155.00	15.24	.....
30	46,410	278.00	44.48	5.80	5	18,724	169.00	15.60	.....
Total..	889,635	6,732.00	826.12	84.75	5	18,428	157.00	15.36	.....
June 3	56,406	339.00	54.06	7.05	7	35,887	359.00	32.49	2.58
3	71,775	718.00	64.98	5.17	7	18,358	156.00	15.30	.....
5	26,590	286.00	25.48	3.32	9	35,090	351.00	31.77	2.53
5	58,406	628.00	55.97	7.30	9	18,348	156.00	15.29	.....
6	73,150	718.00	66.23	5.27	10	18,890	160.00	15.73	.....
11	31,816	342.00	30.49	3.98	11	43,065	331.00	38.99	3.10
12	31,816	342.00	30.49	3.98	11	18,821	160.00	15.68	.....
12	26,590	286.00	25.48	3.32	17	56,413	480.00	47.01	.....
14	31,816	342.00	30.49	3.98	18	37,125	367.00	33.61	2.67
18	24,030	144.00	20.00	.....	18	153,300	1,533.00	146.91	19.16
18	71,775	718.00	64.98	5.17	18	23,925	239.00	21.66	1.72
22	76,800	461.00	64.03	.....	20	18,633	158.00	17.86	2.23
22	71,775	718.00	64.98	5.17	21	37,006	320.00	31.34	.....
26	28,900	178.00	24.00	.....	21	62,645	606.00	56.71	4.51
27	71,400	428.00	68.43	8.93	24	36,685	367.00	33.21	2.64
29	35,700	214.00	34.21	4.46	25	61,910	619.00	59.33	7.74
Total..	788,615	6,857.00	724.27	67.10	25	86,400	518.00	72.00	.....
July 2	35,090	351.00	31.77	2.53	26	18,472	157.00	15.39	.....
3	64,597	646.00	58.48	4.65	27	18,500	157.00	15.42	.....
9	76,670	734.00	69.41	5.52	27	62,725	627.00	60.11	7.84
10	57,600	346.00	48.00	.....	Total..	1,070,190	9,410.00	964.43	73.60
11	117,810	707.00	112.91	14.73	Oct. 1	28,800	173.00	24.00	.....
11	167,790	1,007.00	160.80	20.97	1	17,545	175.00	15.88	1.36
11	81,816	342.00	30.49	3.98	4	19,200	115.00	16.00	.....
13	28,800	173.00	24.00	.....	5	28,800	173.00	24.00	.....
					11	28,060	154.00	23.28	.....
					11	57,600	346.00	48.00	.....
					11	69,320	700.00	66.44	8.67

Detailed statement showing date of arrival, quantity, appraised value, and duties collected on mechanically ground wood pulp imported at Albury, Vt., from the Dominion of Canada from January 1, 1907, to June 1, 1908, with amount of additional duties collected under proviso to paragraph 393, tariff act of 1897—Continued.

Date of arrival.	Quantity.	Appraised value.	Total duties, including increased and additional.	Additional duties under proviso to paragraph 393.	Date of arrival.	Quantity.	Appraised value.	Total duties, including increased and additional.	Additional duties under proviso to paragraph 393.
1907.	<i>Pounds.</i>				1908.	<i>Pounds.</i>			
Oct. 14	117,905	\$1,187.00	\$112.99	\$14.74	Jan. 3	47,320	\$473.00	\$43.57	\$4.14
14	27,132	231.00	22.61	.....	4	16,144	161.00	14.96	1.41
17	19,200	115.00	16.00	.....	4	51,260	479.00	46.41	3.69
25	29,280	161.00	24.40	.....	6	28,800	173.00	24.00	.....
26	29,280	161.00	24.40	.....	7	23,584	236.00	21.71	2.06
29	28,060	154.00	23.38	.....	8	49,440	288.00	41.20	.....
29	86,400	518.00	72.00	.....	9	77,550	734.00	70.21	5.88
Total..	586,582	4,363.00	513.48	24.67	10	28,800	173.00	24.00	.....
Nov. 6	95,101	1,343.00	82.82	3.57	16	28,800	173.00	24.00	.....
8	67,100	365.00	60.11	4.19	17	28,800	173.00	24.00	.....
13	71,716	1,013.00	62.45	2.69	24	28,800	173.00	24.00	.....
14	86,400	518.00	72.00	.....	27	23,485	223.00	21.26	1.69
14	36,600	197.00	32.79	2.29	28	22,990	223.00	20.82	1.66
19	34,292	343.00	31.05	2.47	30	24,475	223.00	22.16	1.76
21	86,400	518.00	72.00	.....	Total..	480,248	3,905.00	422.20	21.99
25	23,925	239.00	21.66	1.72	Feb. 7	22,990	223.00	20.82	1.66
Total..	501,534	4,536.00	434.88	16.93	13	25,575	223.00	23.15	1.84
Dec. 3	61,000	336.00	52.74	1.91	17	24,750	223.00	22.41	1.78
3	28,800	173.00	24.00	.....	21	47,569	336.00	43.06	3.42
4	19,200	115.00	16.00	.....	24	94,875	664.00	85.86	6.83
4	42,700	214.00	36.91	1.33	25	47,080	325.00	42.62	3.39
7	28,670	158.00	23.89	.....	Total..	262,839	1,994.00	237.95	18.92
9	19,200	115.00	16.00	.....	Mar. 2	47,520	335.00	43.02	3.42
12	52,216	522.00	48.06	4.57	7	89,320	670.00	80.86	6.43
12	57,600	345.00	48.00	.....	10	44,660	447.00	40.44	3.22
12	190,190	1,371.00	182.28	23.77	16	17,545	175.00	15.88	1.26
13	86,130	635.00	84.46	11.02	16	22,330	223.00	20.22	1.61
13	25,200	228.00	23.21	2.21	20	66,990	670.00	60.65	4.82
14	26,800	173.00	24.00	.....	24	22,330	223.00	20.22	1.61
16	26,280	367.00	34.66	2.76	24	33,495	335.00	30.32	2.41
17	33,380	240.00	31.99	4.17	27	33,495	335.00	30.32	2.41
17	46,750	439.00	42.83	3.37	27	22,330	223.00	20.22	1.61
21	51,776	518.00	47.68	4.53	28	19,200	115.00	16.00	.....
21	35,585	343.00	32.22	2.56	Total..	419,215	3,751.00	378.15	28.80
23	30,610	222.00	29.53	3.85	Apr. 4	33,495	335.00	30.32	2.41
23	43,106	431.00	39.69	3.77	9	33,495	335.00	30.32	2.41
23	23,925	239.00	21.66	1.72	21	44,660	447.00	40.44	3.22
24	57,600	346.00	48.00	.....	25	75,443	754.00	68.30	5.42
24	63,744	638.00	58.73	5.58	Total..	187,093	1,871.00	169.38	13.46
26	30,630	221.00	29.36	3.83					
31	47,850	479.00	45.81	5.93					
	73,370	550.00	69.29	8.15					
Total..	1,218,542	9,419.00	1,110.50	95.08					

NOTE.—No transactions in May.

Detailed statement showing date of arrival, quantity, appraised value, and duties collected on mechanically ground wood pulp imported at Albury, Vt., from the Dominion of Canada from January 1, 1907, to June 1, 1908, with amount of additional duties collected under proviso to paragraph 593, tariff act of 1897—Continued.

RECAPITULATION.

Date of arrival.	Quantity.	Appraised value.	Total duties, including increased and additional.	Additional duties under proviso to paragraph 593.
1907.				
January.....	Pounds. 1,200,475	\$7,393.00	\$1,136.69	\$120.29
February.....	1,439,400	8,239.00	1,368.86	178.79
March.....	221,290	2,251.00	191.22	6.91
April.....	729,890	5,891.00	660.78	82.69
May.....	686,635	6,732.00	826.12	84.75
June.....	788,615	6,857.00	724.27	67.19
July.....	1,336,477	9,244.00	1,242.29	128.55
August.....	1,069,146	8,384.00	968.19	97.23
September.....	1,070,190	9,410.00	964.43	72.69
October.....	586,562	4,373.00	513.48	24.67
November.....	501,534	4,536.00	434.88	16.93
December.....	1,218,542	9,419.00	1,110.50	95.08
1908.				
January.....	180,248	3,905.00	122.20	21.69
February.....	262,838	1,994.00	237.95	13.89
March.....	419,215	3,751.00	378.15	26.89
April.....	187,093	1,671.00	169.38	13.46
Total.....	12,091,170	94,239.00	11,073.49	1,047.66

Detailed statement showing date of arrival, quantity, appraised value, and duties collected on unbleached chemical wood pulp imported at Albury, Vt., from the Dominion of Canada from January 1, 1907, to June 1, 1908, with amount additional duties collected under proviso to paragraph 593, tariff act of 1897.

Date of arrival.	Quantity.	Appraised value.	Total duties, including increased and additional.	Additional duties under proviso to paragraph 593.	Date of arrival.	Quantity.	Appraised value.	Total duties, including increased and additional.	Additional duties under proviso to paragraph 593.
1907.					1907.				
Jan. 3	Pounds. 36,778	\$593.00	\$65.83	\$4.53	Mar. 1	75,047	\$1,214.00	\$134.33	\$9.26
7	39,857	713.00	71.34	4.91	6	44,010	816.00	78.78	5.43
8	68,282	1,162.00	122.21	8.41	18	47,850	849.00	85.65	5.90
10	72,756	1,180.00	130.22	8.96	26	40,005	640.00	71.61	4.98
14	80,215	1,297.00	143.57	9.88	Total..	206,912	3,519.00	370.38	25.59
16	81,593	1,322.00	146.04	10.05	Apr. 22	42,537	709.00	76.14	5.24
22	40,245	650.00	72.04	4.96	May 1	41,009	725.00	73.40	5.05
Total..	419,726	6,917.00	751.25	51.70	9	39,162	691.00	70.07	4.83
Feb. 1	76,669	1,244.00	137.23	9.45	11	45,375	787.00	81.22	5.59
2	102,598	1,660.00	183.64	12.64	18	38,193	673.00	68.34	4.70
4	19,448	297.00	35.88	3.47	18	39,354	718.00	70.44	4.85
6	38,403	619.00	68.74	4.73	18	38,357	711.00	68.66	4.73
6	34,031	561.00	60.91	4.19	18	43,173	761.00	77.28	5.33
9	35,600	565.00	63.73	4.39	18	36,515	645.00	65.36	4.50
11	37,541	616.00	67.20	4.63	21	43,916	814.00	78.00	5.41
13	110,352	1,790.00	197.52	13.60	30	76,072	1,351.00	136.16	9.37
13	70,876	1,148.00	126.86	8.73	Total..	441,106	7,876.00	789.63	54.34
15	19,533	298.00	36.05	3.49	June 11	51,940	920.00	92.97	6.40
19	40,406	718.00	72.32	4.98	11	38,848	686.00	69.54	4.79
19	34,973	646.00	62.60	4.31	12	40,056	709.00	71.70	4.94
20	70,656	1,144.00	126.47	8.71	16	73,492	1,302.00	131.56	9.06
22	33,095	609.00	59.24	4.08					
Total..	724,181	11,915.00	1,298.39	91.40					

Detailed statement showing date of arrival, quantity, appraised value, and duties collected on unbleached chemical wood pulp imported at Alburg, Vt., from the Dominion of Canada from January 1, 1907, to June 1, 1908, with amount additional duties collected under proviso to paragraph 393, tariff act of 1897—Continued.

Date of arrival.	Quantity.	Appraised value.	Total duties, including increased and additional.	Additional duties under proviso to paragraph 393.	Date of arrival.	Quantity.	Appraised value.	Total duties, including increased and additional.	Additional duties, under proviso to paragraph 393.
1907.	<i>Pounds.</i>				1907.	<i>Pounds.</i>			
June 17	38,349	\$680.00	\$68.65	\$4.73	Oct. 18	88,664	\$1,568.00	\$158.09	\$10.92
24	36,484	645.00	65.31	4.50	30	39,917	789.00	71.45	4.92
Total..	279,169	4,942.00	499.72	34.42	Total..	417,027	7,538.00	746.41	51.37
July 9	39,721	699.00	71.09	4.89	Nov. 5	41,594	766.00	74.44	5.12
9	85,254	1,514.00	152.59	10.50	9	34,291	632.00	61.38	4.23
9	40,172	742.00	71.90	4.95	15	34,548	663.00	61.84	4.26
15	44,763	793.00	80.13	5.52	27	42,265	841.00	75.65	5.21
20	86,064	1,564.00	157.61	10.85	Total..	152,698	2,922.00	273.31	18.52
22	47,064	872.00	84.22	5.80	Dec. 23	39,874	788.00	71.37	4.91
26	44,510	791.00	79.66	5.48	31	37,844	748.00	67.73	4.66
Total..	389,538	6,975.00	697.20	47.99	Total..	77,718	1,536.00	139.10	9.57
Aug. 4	43,912	779.00	78.60	5.41	1908.				
7	45,943	812.00	82.23	5.66	Jan. 4	35,825	657.00	64.12	4.41
7	35,534	627.00	63.60	4.38	13	40,137	795.00	71.85	4.95
7	44,223	817.00	79.16	5.45	Total..	75,962	1,452.00	135.97	9.36
10	34,323	604.00	61.44	4.23	Feb. 4	40,060	794.00	71.71	4.94
12	85,422	1,514.00	152.90	10.53	12	39,210	794.00	70.18	4.83
24	42,154	743.00	75.45	5.19	Total..	79,270	1,588.00	141.89	9.77
26	42,314	745.00	75.73	5.21	Mar. 11	40,290	799.00	72.11	4.95
26	43,316	767.00	77.53	5.34	20	41,856	774.00	74.92	5.16
28	89,230	1,661.00	159.71	10.99	Total..	82,146	1,573.00	147.03	10.12
Total..	506,371	9,069.00	906.35	62.39	Apr. 6	47,783	862.00	85.55	5.91
Sept. 3	42,984	851.00	76.94	5.30	7	38,444	705.00	68.81	4.74
3	89,512	1,587.00	160.22	11.03	7	39,594	725.00	70.87	4.88
4	77,551	1,376.00	136.81	9.56	Total..	125,821	2,292.00	225.23	15.53
14	81,502	1,445.00	145.88	10.04	May 15	41,178	752.00	73.70	5.07
19	88,743	1,574.00	158.84	10.93	16	34,604	632.00	61.93	4.26
20	89,185	1,580.00	159.63	10.99	21	39,282	715.00	70.28	4.84
23	85,387	1,510.00	152.83	10.52	Total..	115,044	2,102.00	205.91	14.17
24	87,378	1,548.00	156.40	10.77					
26	44,898	795.00	80.36	5.53					
Total..	667,140	12,266.00	1,229.91	84.67					
Oct. 3	39,739	787.00	71.13	4.90					
7	85,802	1,516.00	153.57	10.57					
11	87,404	1,544.00	156.43	10.76					
14	75,501	1,334.00	135.14	9.30					

Detailed statement showing date of arrival, quantity, appraised value, and duties collected on unbleached chemical wood pulp imported at Alburg, Vt., from the Dominion of Canada from January 1, 1907, to June 1, 1908, with amount additional duties collected under proviso to paragraph 393, tariff act of 1897—Continued.

RECAPITULATION.

Date of arrival.	Quantity.	Appraised value.	Total duties, including increased and additional.	Additional duties under proviso to paragraph 393.
1907.				
January.....	<i>Pounds.</i> 419,726	\$6,917.00	\$751.25	\$51.70
February.....	724,181	11,915.00	1,298.39	91.40
March.....	206,912	3,519.00	370.38	25.50
April.....	42,537	769.00	76.14	5.24
May.....	441,106	7,876.00	789.53	54.34
June.....	279,169	4,942.00	499.72	34.43
July.....	399,538	6,975.00	667.20	47.99
August.....	506,371	9,089.00	906.35	62.39
September.....	687,140	12,266.00	1,229.91	84.67
October.....	417,027	7,538.00	746.41	51.37
November.....	152,098	2,922.00	273.31	18.82
December.....	77,718	1,536.00	139.10	9.67
1908.				
January.....	75,692	1,452.00	135.97	9.36
February.....	79,270	1,568.00	141.89	9.77
March.....	82,146	1,573.00	147.03	10.12
April.....	125,821	2,282.00	225.23	15.53
May.....	115,044	2,102.00	205.91	14.17
Total.....	4,822,096	85,271.00	8,633.72	596.36

Detailed statement showing date of arrival, quantity, appraised value, and duties collected on news-printing paper, unsized, valued at not above 2 cents per pound, imported at Alburg, Vt., from the Dominion of Canada from January 1, 1907, to June 1, 1908, with amount of additional duties collected under proviso to paragraph 396, tariff act of 1897.

Date of arrival.	Quantity.	Appraised value.	Total duties, including increased and additional.	Additional duties under proviso to paragraph 396.	Date of arrival.	Quantity.	Appraised value.	Total duties, including increased and additional.	Additional duties under proviso to paragraph 396.
1907.					1907.				
Apr. 17	<i>Pounds.</i> 31,750	\$524.00	\$95.25	.....	July 15	53,236	\$958.00	\$169.71	.....
May 8	5,455	90.00	16.37	.....	15	51,674	956.00	155.02	.....
June 4	35,363	710.00	115.09	.....	15	53,033	981.00	159.10	.....
4	28,617	529.00	85.85	.....	16	37,086	668.00	111.26	.....
5	39,298	727.00	117.89	.....	19	48,822	903.00	146.47	.....
6	36,649	678.00	109.95	.....	19	49,771	921.00	149.31	.....
6	36,240	670.00	108.72	.....	26	35,941	647.00	107.82	.....
6	46,509	842.00	136.53	.....	Oct. 9	44,230	818.00	132.69	.....
10	30,254	560.00	90.76	.....	15	39,936	736.00	119.81	.....
10	38,905	720.00	116.72	.....	21	46,182	831.00	138.55	.....
11	34,939	646.00	104.82	.....	Nov. 6	38,709	716.00	116.13	.....
15	33,309	616.00	99.93	.....	12	43,136	798.00	129.41	.....
16	33,672	623.00	101.02	.....	1908.				
17	31,127	576.00	93.38	.....	May 16	42,500	850.00	136.21	\$8.71
July 9	51,833	969.00	155.50	.....	Total..	1,179,646	21,704.00	3,547.68	8.71
10	34,963	647.00	104.89	.....				
16	44,607	801.00	133.52	.....				

Detailed statement showing date of arrival, quantity, and value of pulp woods imported from the Dominion of Canada and entered under paragraph 699, at the port of Alburg, Vt., from January 1, 1907, to June 1, 1908.

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1907.	Cords.		1907.	Cords.		1907.	Cords.	
Jan. 2.....	238	\$1,028.00	Apr. 3.....	149	\$777.00	July 5.....	182	\$782.00
3.....	358	1,420.00	4.....	209	890.00	6.....	311	1,259.00
4.....	218	959.00	5.....	289	1,478.00	8.....	568	2,539.00
5.....	227	989.00	6.....	364	1,431.00	9.....	376	1,588.00
7.....	253	1,002.00	8.....	102	532.00	10.....	186	851.00
8.....	226	906.00	9.....	619	2,633.00	11.....	228	1,083.00
9.....	121	601.00	10.....	349	1,394.00	12.....	202	798.00
10.....	235	918.00	11.....	490	1,954.00	13.....	416	1,697.00
11.....	140	608.00	12.....	315	1,168.00	15.....	336	1,574.00
12.....	138	613.00	13.....	885	3,698.00	16.....	1,299	6,558.00
13.....	285	1,315.00	14.....	1,128	4,719.00	17.....	219	1,115.00
14.....	340	1,462.00	15.....	441	2,183.00	18.....	486	2,184.00
15.....	221	895.00	16.....	301	1,376.00	19.....	261	1,118.00
17.....	262	1,120.00	18.....	243	1,741.00	20.....	635	2,805.00
18.....	192	813.00	19.....	560	2,199.00	23.....	1,287	5,408.00
19.....	164	728.00	20.....	336	1,379.00	24.....	33	132.00
21.....	181	855.00	22.....	459	1,960.00	25.....	521	2,398.00
22.....	45	223.00	23.....	1,024	4,151.00	26.....	734	3,157.00
23.....	172	658.00	24.....	149	605.00	27.....	496	1,975.00
24.....	234	1,113.00	25.....	680	2,768.00	29.....	627	2,693.00
25.....	259	1,031.00	26.....	442	1,752.00	30.....	290	1,305.00
26.....	388	1,743.00	27.....	307	1,246.00	31.....	210	835.00
28.....	174	740.00	29.....	1,740	7,112.00	Aug. 1.....	451	1,933.00
29.....	152	677.00	30.....	578	2,238.00	2.....	86	364.00
30.....	151	594.00	May 1.....	202	863.00	3.....	916	3,678.00
31.....	460	1,776.00	2.....	855	1,101.00	5.....	492	2,247.00
Feb. 1.....	618	3,024.00	3.....	469	2,264.00	6.....	656	3,944.00
2.....	205	940.00	4.....	649	2,625.00	8.....	689	2,987.00
4.....	172	791.00	5.....	596	2,602.00	9.....	205	828.00
5.....	432	1,840.00	7.....	710	2,873.00	10.....	363	1,665.00
6.....	68	343.00	8.....	611	2,552.00	12.....	511	2,204.00
7.....	230	1,164.00	9.....	599	2,074.00	13.....	519	2,394.00
8.....	258	1,119.00	10.....	253	902.00	14.....	224	997.00
9.....	169	784.00	11.....	1,148	4,596.00	15.....	102	388.00
11.....	737	3,389.00	12.....	770	3,247.00	16.....	853	2,744.00
12.....	405	1,582.00	14.....	833	3,646.00	19.....	963	4,499.00
13.....	278	1,031.00	15.....	300	1,152.00	20.....	337	1,424.00
14.....	179	872.00	16.....	497	1,964.00	21.....	292	1,176.00
15.....	201	922.00	17.....	570	2,163.00	22.....	117	530.00
16.....	611	2,702.00	18.....	430	1,727.00	23.....	462	1,844.00
18.....	166	719.00	20.....	265	1,070.00	24.....	745	3,236.00
19.....	228	1,127.00	21.....	1,430	5,786.00	26.....	570	2,420.00
20.....	148	735.00	22.....	352	1,398.00	27.....	812	3,798.00
21.....	405	1,781.00	23.....	514	1,806.00	29.....	573	2,462.00
22.....	130	531.00	25.....	525	1,884.00	30.....	465	1,950.00
23.....	141	680.00	27.....	329	1,283.00	Sept. 3.....	419	1,776.00
25.....	120	500.00	28.....	728	2,943.00	4.....	681	3,138.00
26.....	177	790.00	29.....	1,062	4,084.00	5.....	387	1,763.00
27.....	204	889.00	30.....	267	1,060.00	6.....	318	1,312.00
28.....	307	1,250.00	31.....	343	1,081.00	7.....	545	2,203.00
Mar. 1.....	129	605.00	June 1.....	353	1,420.00	9.....	235	1,082.00
2.....	202	847.00	3.....	864	3,337.00	10.....	572	2,586.00
4.....	118	447.00	4.....	444	1,836.00	11.....	293	1,456.00
5.....	128	495.00	5.....	138	464.00	12.....	529	2,400.00
6.....	66	318.00	6.....	646	2,555.00	13.....	432	2,012.00
7.....	199	792.00	7.....	405	1,515.00	14.....	401	1,368.00
8.....	106	468.00	8.....	276	1,200.00	16.....	382	1,689.00
9.....	205	947.00	10.....	1,067	4,400.00	17.....	767	3,029.00
11.....	204	756.00	11.....	736	2,909.00	18.....	427	1,726.00
12.....	153	763.00	12.....	644	2,469.00	19.....	247	1,004.00
13.....	197	795.00	13.....	316	1,221.00	20.....	426	1,700.00
14.....	356	1,500.00	14.....	626	2,346.00	21.....	453	1,882.00
15.....	121	523.00	15.....	1,140	3,906.00	23.....	563	2,381.00
16.....	141	584.00	17.....	315	1,260.00	24.....	625	2,655.00
18.....	232	1,102.00	18.....	896	3,680.00	25.....	443	1,457.00
19.....	220	888.00	19.....	441	1,795.00	26.....	204	853.00
20.....	150	680.00	20.....	343	1,336.00	27.....	253	1,153.00
21.....	196	869.00	21.....	285	1,035.00	28.....	574	1,942.00
22.....	229	927.00	22.....	532	2,217.00	30.....	298	1,295.00
23.....	122	506.00	24.....	287	1,114.00	Oct. 1.....	745	3,067.00
25.....	107	415.00	25.....	275	1,103.00	2.....	372	1,414.00
26.....	453	2,114.00	26.....	242	978.00	4.....	304	1,365.00
27.....	140	565.00	27.....	275	1,133.00	5.....	223	977.00
28.....	148	817.00	28.....	121	474.00	7.....	160	640.00
29.....	285	1,470.00	29.....	680	2,683.00	8.....	912	3,670.00
30.....	232	1,048.00	July 1.....	443	1,772.00	9.....	416	1,815.00
Apr. 1.....	269	942.00	2.....	285	1,214.00	10.....	317	1,552.00
2.....	205	895.00	3.....	170	745.00	11.....	168	716.00

Detailed statement showing date of arrival, quantity, and value of pulp woods imported from the Dominion of Canada and entered under paragraph 699, at the port of Alburg, Vt., from January 1, 1907, to June 1, 1908—Continued.

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
Oct. 1907.	<i>Cords.</i>		Jan. 1908.	<i>Cords.</i>		Mar. 1908.	<i>Cords.</i>	
12.....	58	\$370.00	2.....	362	\$1,665.00	20.....	295	\$1,162.00
14.....	335	1,498.00	3.....	815	4,147.00	21.....	502	1,908.00
15.....	342	1,491.00	4.....	400	1,774.00	23.....	966	3,834.00
16.....	419	1,827.00	6.....	105	553.00	24.....	1,570	6,179.00
17.....	169	696.00	7.....	463	2,181.00	25.....	758	2,982.00
18.....	245	1,188.00	8.....	190	840.00	26.....	872	3,816.00
19.....	83	149.00	9.....	266	1,109.00	27.....	1,010	4,050.00
21.....	475	1,963.00	10.....	133	586.00	28.....	645	2,560.00
22.....	123	562.00	11.....	248	1,136.00	30.....	2,837	9,394.00
23.....	371	1,782.00	12.....	72	248.00	31.....	1,267	5,076.00
24.....	466	2,385.00	14.....	341	1,624.00	Apr. 1.....	769	3,056.00
25.....	212	883.00	15.....	308	1,212.00	2.....	477	1,865.00
26.....	129	534.00	16.....	620	2,729.00	3.....	1,170	4,534.00
28.....	339	1,477.00	17.....	140	704.00	4.....	334	1,398.00
29.....	575	2,690.00	18.....	285	1,295.00	6.....	449	1,796.00
31.....	276	1,220.00	20.....	307	1,264.00	7.....	1,596	6,288.00
Nov. 1.....	404	1,774.00	21.....	499	2,166.00	8.....	253	992.00
2.....	65	280.00	22.....	844	3,265.00	9.....	675	2,670.00
4.....	568	2,556.00	23.....	221	844.00	10.....	717	2,767.00
5.....	238	1,129.00	24.....	541	2,330.00	11.....	620	2,370.00
6.....	510	2,534.00	25.....	594	2,368.00	13.....	704	2,820.00
7.....	143	824.00	27.....	576	2,508.00	14.....	730	2,920.00
8.....	209	910.00	28.....	984	4,319.00	15.....	554	2,164.00
9.....	251	1,183.00	29.....	309	1,269.00	16.....	698	2,796.00
11.....	78	247.00	30.....	600	2,447.00	17.....	330	1,279.00
12.....	195	797.00	31.....	671	3,039.00	18.....	267	1,008.00
13.....	177	744.00	Feb. 1.....	380	1,435.00	20.....	748	2,923.00
14.....	166	684.00	3.....	235	920.00	21.....	1,047	4,158.00
15.....	99	431.00	4.....	317	1,268.00	22.....	149	596.00
18.....	268	1,216.00	5.....	198	890.00	23.....	428	1,712.00
19.....	156	683.00	7.....	580	2,240.00	24.....	277	1,110.00
20.....	222	977.00	8.....	249	987.00	25.....	509	1,948.00
22.....	189	878.00	12.....	305	1,180.00	27.....	391	1,135.00
23.....	97	388.00	13.....	497	2,077.00	28.....	765	2,958.00
25.....	930	4,030.00	14.....	466	1,854.00	29.....	232	1,068.00
26.....	320	1,562.00	15.....	797	3,296.00	30.....	355	1,420.00
27.....	325	1,547.00	17.....	1,149	4,596.00	May 1.....	547	1,968.00
29.....	276	1,064.00	18.....	554	3,589.00	2.....	274	1,086.00
30.....	663	3,111.00	19.....	633	2,619.00	4.....	292	1,168.00
Dec. 1.....	576	2,625.00	20.....	253	1,012.00	5.....	267	1,028.00
2.....	22	105.00	21.....	369	1,454.00	6.....	545	2,380.00
4.....	147	677.00	22.....	254	1,016.00	7.....	282	1,048.00
5.....	329	1,771.00	24.....	476	1,897.00	8.....	160	640.00
6.....	142	624.00	25.....	531	2,178.00	9.....	225	900.00
7.....	201	980.00	26.....	739	2,960.00	11.....	308	824.00
9.....	659	3,114.00	27.....	765	3,203.00	12.....	243	972.00
10.....	966	4,518.00	28.....	346	1,384.00	13.....	267	1,148.00
11.....	305	1,500.00	29.....	913	3,652.00	14.....	225	900.00
12.....	717	3,259.00	Mar. 2.....	649	2,596.00	15.....	11	44.00
13.....	327	1,637.00	3.....	1,932	7,505.00	16.....	677	2,670.00
14.....	550	2,519.00	4.....	667	2,552.00	18.....	79	316.00
16.....	290	1,537.00	5.....	551	2,292.00	19.....	237	1,090.00
17.....	835	4,936.00	6.....	471	2,029.00	20.....	162	665.00
18.....	475	2,051.00	7.....	581	2,299.00	21.....	110	468.00
19.....	169	856.00	8.....	481	1,997.00	22.....	124	560.00
20.....	521	2,589.00	10.....	764	3,128.00	23.....	100	470.00
21.....	655	3,289.00	11.....	1,202	4,755.00	25.....	82	225.00
23.....	487	2,289.00	12.....	394	1,576.00	26.....	99	396.00
24.....	1,047	4,749.00	13.....	249	996.00	27.....	153	630.00
26.....	486	2,298.00	14.....	430	1,758.00	28.....	87	348.00
27.....	1,177	5,591.00	16.....	552	2,310.00	29.....	77	308.00
28.....	42	186.00	17.....	801	3,164.00	30.....	56	224.00
30.....	770	3,582.00	18.....	556	2,184.00			
31.....	464	2,135.00	19.....	847	3,390.00			

Detailed statement showing date of arrival, quantity, and value of pulp woods imported from the Dominion of Canada and entered under paragraph 699, at the port of Alburg, Vt., from January 1, 1907, to June 1, 1908—Continued.

RECAPITULATION.

Date of arrival.	Quantity.	Value.
1907.		
January.....	<i>Cords.</i> 5,834	\$24,787.00
February.....	6,585	29,366.00
March.....	4,839	21,321.00
April.....	12,721	53,221.00
May.....	14,707	58,772.00
June.....	12,355	48,295.00
July.....	10,801	46,605.00
August.....	11,393	50,682.00
September.....	10,444	43,862.00
October.....	8,214	28,821.00
November.....	6,549	29,436.00
December.....	12,349	59,427.00
1908.		
January.....	40,894	47,592.00
February.....	11,286	45,697.00
March.....	21,609	85,822.00
April.....	15,207	59,721.00
May.....	5,447	22,495.00
Grand total.....	181,235	762,706.00

SUBPORT OF EAST ALBURG, VT.

Statement of importations of unbleached chemical wood pulp at the subport of East Alburg, Vt., from January 1, 1907, to June 1, 1908.

Date of arrival.	Quantity.	Appraised value.	Country of origin.	Duties collected.	Additional per. 393.
1907.					
	<i>Pounds.</i>				
December 3.....	44,563	\$819.00	Canada.....	\$80.12	\$5.52
December 8.....	41,393	776.00	do.....	74.09	5.10
Do.....	42,345	794.00	do.....	75.80	5.22
Do.....	45,606	832.00	do.....	81.63	5.62
Do.....	45,967	839.00	do.....	82.27	5.65
December 20.....	37,151	680.00	do.....	66.50	4.58
December 21.....	79,895	1,503.00	do.....	143.00	9.84
Do.....	43,036	789.00	do.....	77.03	5.30
December 23.....	76,983	1,411.00	do.....	137.80	9.49
Total.....	456,939	8,443.00		818.24	56.33

No importations filter massé, printing paper, or pulp woods.

PORT OF SWANTON, VT.

Statement of chemical wood pulp imported through the port of Swanton, Vt., during the period from January 1, 1907, to June 1, 1908.

Date.	Quantity.	Appraised value.	Country.	Duty.	Additional duty under provisions to paragraphs 298 and 299.
1907.	<i>Pounds.</i>				
January 1.....	42,271	\$844.00	Canada.....	\$70.45	\$5.21
January 3.....	73,000	1,157.00	do.....	121.67	8.99
January 5.....	38,928	779.00	do.....	64.88	4.80
January 7.....	36,654	581.00	do.....	61.09	4.52
January 9.....	47,326	878.00	do.....	78.88	5.83
January 14.....	41,081	725.00	do.....	68.47	5.06
February 1.....	109,847	1,909.00	do.....	183.08	13.54
February 8.....	78,495	1,357.00	do.....	230.83	9.57
February 25.....	75,300	1,249.00	do.....	135.67	9.29
March 23.....	35,306	561.00	do.....	58.84	4.35
March 25.....	88,540	1,699.00	do.....	147.57	10.90
April 22.....	82,168	1,762.00	do.....	336.95	10.12
May 17.....	79,896	1,381.00	do.....	123.16	9.84
May 24.....	36,741	634.00	do.....	61.24	4.53
June 7.....	52,400	909.00	do.....	87.33	6.46
November 11.....	36,439	703.00	do.....	69.73	4.49
Total.....	954,390	17,128.00		1,600.84	117.60

NOTE.—Only chemical wood pulp imported. No importations of printing paper or pulp woods.

PORT OF ST. ALBANS, VT.

Importations of wood pulp, mechanically ground, imported from Canada and entered at the port of St. Albans, Vt., between January 1, 1907, and June 1, 1908.

Date.	Quantity.	Value.	Duty.	Additional.	Total.
1907.	<i>Pounds.</i>				
January 7.....	24,000	\$108.00	\$20.00	\$3.70	\$23.70
January 9.....	46,000	207.00	38.33	7.03	45.36
January 30.....	25,000	113.00	20.83	4.97	25.80
Do.....	27,500	124.00	22.92	5.65	28.67
Do.....	30,000	135.00	25.00	5.27	30.27
Do.....	25,000	113.00	20.83	3.55	24.38
February 17.....	20,000	90.00	16.67	2.40	19.07
February 19.....	30,000	135.00	25.00	4.88	29.88
February 20.....	30,000	135.00	25.00	3.28	28.28
February 21.....	25,000	113.00	20.83	6.13	26.96
September 27.....	51,242	410.00	42.70	6.41	49.11
October 2.....	31,237	250.00	26.03	3.90	29.93
October 7.....	35,700	296.00	30.75	4.46	34.21
1908.					
March 17.....	148,940	1,651.00	124.12	10.72	134.84
March 26.....	60,000	270.00	50.00	13.46	63.46
Total.....	609,619	4,150.00	508.01	85.81	593.82

No filter masse, or filter stock, was imported from Canada and entered at the port of St. Albans, Vt., between January 1, 1907, and June 1, 1908.

Importations of chemical wood pulp, unbleached, imported from Canada and entered at the port of St. Albans, Vt., between January 1, 1907, and June 1, 1908.

Date.	Quantity.	Value.	Duty.	Additional duty.	Total.
1907.					
	<i>Pounds.</i>				
April 23.....	37,538	\$601.00	\$62.56	\$4.63	\$67.19
April 25.....	41,340	834.00	68.90	5.09	73.99
May 2.....	35,346	563.00	58.91	6.31	65.22
May 8.....	33,073	522.00	55.12	4.00	59.12
May 11.....	42,122	845.00	70.20	5.19	75.39
May 15.....	38,394	609.00	63.98	4.73	68.72
May 23.....	43,722	854.00	72.87	5.39	78.26
May 26.....	46,835	917.00	78.06	5.77	83.83
May 27.....	40,646	801.00	67.74	5.01	72.76
May 30.....	46,487	916.00	77.48	5.73	83.21
May 31.....	42,268	832.00	70.45	5.21	75.66
June 3.....	64,434	911.00	77.39	5.72	83.11
Do.....	47,135	927.00	78.66	5.82	84.48
June 4.....	46,882	919.00	78.14	5.78	83.92
Do.....	47,373	934.00	78.96	5.84	84.80
Do.....	43,800	877.00	73.00	5.40	78.40
Do.....	40,151	792.00	66.92	4.95	71.87
June 13.....	47,677	959.00	79.46	5.87	85.33
July 6.....	43,354	868.00	72.26	5.34	77.60
July 14.....	43,506	841.00	72.57	5.36	77.93
July 21.....	45,591	893.00	75.99	5.62	81.61
Do.....	45,945	901.00	76.58	5.66	82.24
Do.....	47,185	927.00	78.64	5.81	84.45
Do.....	130,543	2,570.00	217.57	16.08	233.65
Do.....	45,723	893.00	76.21	5.63	81.84
July 25.....	48,906	950.00	81.51	6.03	87.54
August 8.....	53,940	1,074.00	89.90	6.65	96.55
August 14.....	39,493	772.00	65.82	4.87	70.69
August 13.....	85,343	1,665.00	142.24	10.52	152.76
August 15.....	44,740	961.00	74.57	5.51	80.08
August 21.....	47,745	950.00	79.58	5.88	85.46
August 28.....	44,316	948.00	73.86	5.46	79.32
September 12.....	44,212	880.00	73.69	5.45	79.14
October 18.....	44,068	866.00	73.50	5.43	78.93
Do.....	45,778	942.00	76.30	5.64	81.94
October 19.....	83,270	1,624.00	138.78	10.26	149.04
October 26.....	38,079	744.00	63.47	4.69	68.16
October 29.....	38,172	748.00	63.62	4.70	68.32
Do.....	25,614	696.00	59.36	4.39	63.75
Do.....	38,543	753.00	64.24	4.75	68.99
October 31.....	37,510	733.00	62.52	4.62	67.14
Do.....	39,092	765.00	65.15	4.82	69.97
November 1.....	36,150	708.00	60.25	4.45	64.70
November 23.....	69,648	1,276.00	116.08	8.58	124.66
Do.....	34,010	616.00	56.68	4.19	60.87
November 25.....	74,502	1,453.00	124.17	9.18	133.35
December 4.....	41,795	747.00	69.66	5.15	74.81
December 9.....	34,596	630.00	57.66	4.26	61.92
Do.....	81,824	1,597.00	136.37	10.08	146.45
December 24.....	44,571	815.00	74.29	5.49	79.78
1908.					
January 8.....	40,013	758.00	66.69	4.93	71.62
Do.....	41,780	741.00	69.63	5.15	74.78
January 14.....	40,001	713.00	66.67	4.93	71.60
February 13.....	36,968	651.00	61.61	4.55	66.16
February 14.....	39,302	749.00	65.50	4.84	70.34
February 19.....	79,700	1,423.00	132.83	9.82	142.65
February 24.....	40,981	763.00	68.30	5.05	73.35
March 17.....	113,736	1,906.00	189.56	14.01	213.57
April 6.....	37,071	645.00	61.79	4.57	66.36
April 13.....	43,043	754.00	71.74	5.30	77.04
May 1.....	21,450	261.00	35.75	3.83	39.58
May 24.....	39,767	680.00	66.28	4.90	71.18
Total.....	2,958,932	50,460.00	4,948.25	368.87	5,317.96

Importations of printing paper imported from Canada and entered at the port of St. Albans, Vt., between January 1, 1907, and June 1, 1908.

VALUED LESS THAN 2 CENTS PER POUND.

Date.	Quantity.	Value.	Duty.	Additional duty.	Total.
1907.	<i>Pounds.</i>				
June 18.....	33,963	\$628.00	\$101.89		
June 22.....	41,570	769.00	124.71		
June 25.....	37,087	686.00	111.26		
June 26.....	46,399	858.00	139.20		
June 28.....	44,663	804.00	133.99		
July 1.....	43,760	788.00	131.28		
July 3.....	30,184	558.00	90.55		
July 7.....	51,182	921.00	153.56		
July 25.....	38,190	707.00	114.57		
Total.....	366,998	6,719.00	1,101.55		

VALUED ABOVE 4 CENTS AND NOT ABOVE 5 CENTS PER POUND.

Date.	Quantity.	Value.	Duty.	Additional duty.	Total.
1907.	<i>Pounds.</i>				
January 11.....	375	\$19.00	\$3.00	\$0.00	\$3.00

Importations of pulp wood imported from Canada and entered at the port of St. Albans, Vt., between January 1, 1907, and June 1, 1908.

Date.	Quantity.	Value.	Date.	Quantity.	Value.	Date.	Quantity.	Value.
1907.	<i>Cords.</i>		1907.	<i>Cords.</i>		1907.	<i>Cords.</i>	
Jan. 9.....	10	\$50.00	Mar. 14.....	10	\$40.00	Apr. 17.....	12	\$48.00
16.....	10	50.00	14.....	124	50.00	19.....	10	40.00
30.....	12	52.00	15.....	9	36.00	19.....	20	80.00
30.....	12	52.00	17.....	10	40.00	19.....	10	40.00
30.....	12	48.00	17.....	8	32.00	19.....	9	36.00
30.....	15	60.00	18.....	10	40.00	19.....	11	44.00
Feb. 8.....	16	64.00	20.....	10	40.00	20.....	10	40.00
8.....	104	45.00	23.....	10	45.00	21.....	20	80.00
8.....	10	40.00	24.....	10	40.00	21.....	16	64.00
8.....	12	48.00	27.....	10	40.00	21.....	20	80.00
10.....	84	36.00	28.....	8	32.00	21.....	10	40.00
10.....	10	40.00	28.....	10	40.00	22.....	9	36.00
15.....	20	80.00	28.....	9	36.00	22.....	20	80.00
19.....	16	64.00	29.....	8	32.00	23.....	9	36.00
21.....	10	40.00	29.....	10	40.00	23.....	10	40.00
21.....	24	96.00	29.....	20	80.00	23.....	12	52.00
22.....	10	40.00	29.....	10	40.00	25.....	10	40.00
24.....	16	64.00	30.....	8	32.00	25.....	19	95.00
24.....	9	36.00	31.....	8	32.00	25.....	12	60.00
24.....	13	52.00	31.....	24	96.00	25.....	104	42.00
24.....	13	52.00	31.....	12	48.00	26.....	20	80.00
24.....	10	40.00	31.....	15	60.00	26.....	20	80.00
24.....	11	44.00	31.....	10	40.00	26.....	20	80.00
24.....	13	52.00	Apr. 1.....	10	40.00	26.....	20	80.00
24.....	13	52.00	2.....	10	40.00	26.....	18	90.00
25.....	10	40.00	2.....	10	40.00	26.....	20	80.00
27.....	24	96.00	2.....	12	48.00	26.....	10	40.00
27.....	10	45.00	2.....	10	40.00	27.....	10	40.00
28.....	10	40.00	3.....	24	96.00	28.....	20	100.00
28.....	12	48.00	3.....	12	48.00	28.....	10	50.00
28.....	94	38.00	3.....	10	40.00	28.....	18	90.00
Mar. 2.....	16	64.00	3.....	10	40.00	28.....	20	80.00
2.....	10	45.00	4.....	10	40.00	28.....	10	40.00
3.....	16	80.00	4.....	10	40.00	28.....	20	80.00
3.....	10	40.00	4.....	10	40.00	29.....	20	80.00
3.....	8	32.00	12.....	10	40.00	29.....	18	90.00
5.....	9	36.00	12.....	20	80.00	29.....	10	40.00
5.....	9	45.00	15.....	10	40.00	29.....	24	96.00
5.....	20	90.00	15.....	20	80.00	29.....	20	80.00
9.....	8	32.00	16.....	10	40.00	30.....	10	40.00
9.....	10	40.00	16.....	10	40.00	30.....	20	80.00
12.....	10	40.00	16.....	12	48.00	May 1.....	10	40.00
12.....	10	45.00	16.....	18	72.00	1.....	24	96.00
12.....	10	45.00	16.....	12	48.00	1.....	10	40.00
12.....	10	45.00	17.....	10	40.00	1.....	20	80.00
12.....	10	45.00	17.....	20	80.00	2.....	10	40.00
12.....	10	40.00	17.....	10	40.00	2.....	10	40.00

Importations of pulp wood imported from Canada and entered at the port of St. Albans, Vt., between January 1, 1907, and June 1, 1908—Continued.

Date.	Quantity.	Value.	Date.	Quantity.	Value.	Date.	Quantity.	Value.
1907.	Cords.		1907.	Cords.		1907.	Cords.	
May 2.....	10	\$40.00	May 26.....	10	\$40.00	June 28.....	10	\$50.00
2.....	10	40.00	26.....	10	50.00	29.....	10	50.00
2.....	10	40.00	26.....	20	80.00	July 1.....	12	50.00
2.....	10	50.00	26.....	10	40.00	1.....	20	80.00
2.....	10	40.00	26.....	10	40.00	7.....	10	55.00
2.....	19	95.00	26.....	10	40.00	7.....	14	69.00
2.....	10	50.00	26.....	10	40.00	7.....	20	80.00
1.....	10	40.00	30.....	10	40.00	7.....	10	55.00
1.....	10	40.00	30.....	10	50.00	7.....	10	50.00
4.....	18	90.00	30.....	20	80.00	7.....	10	40.00
4.....	10	40.00	30.....	20	80.00	7 and 8.....	20	100.00
5.....	20	80.00	30.....	10	40.00	8.....	10	50.00
4 and 5.....	20	80.00	30.....	9	47.00	10.....	10	55.00
5.....	20	80.00	30.....	12	59.00	10.....	9	47.00
5.....	10	40.00	30.....	10	40.00	10.....	10	50.00
5.....	10	40.00	30.....	20	80.00	10.....	10	40.00
5.....	10	45.00	30.....	10	45.00	10.....	10	40.00
5.....	10	50.00	31.....	14	58.00	11.....	18	99.00
6.....	18	90.00	June 1.....	9	36.00	11.....	10	55.00
6.....	10	50.00	2.....	20	100.00	11.....	10	55.00
6.....	20	80.00	2.....	10	50.00	13.....	9	36.00
6.....	20	80.00	2.....	20	100.00	14.....	10	55.00
6.....	20	80.00	2.....	20	80.00	15.....	10	55.00
7.....	12	48.00	2.....	10	40.00	16.....	18	99.00
7.....	11½	46.00	2.....	10	40.00	18.....	8	32.00
9.....	9	45.00	2.....	9	47.00	18.....	16	64.00
9.....	9	45.00	3.....	10	40.00	18.....	10	55.00
9.....	20	80.00	3.....	10	40.00	23.....	16	64.00
9.....	10	40.00	3.....	12	59.00	23.....	10	50.00
9.....	20	80.00	3.....	18	94.00	23.....	20	90.00
9.....	20	80.00	3.....	12	59.00	23.....	10	55.00
10.....	10	40.00	3.....	10	45.00	23.....	12	66.00
10.....	9	36.00	3.....	10	50.00	23.....	12	59.00
10.....	10	40.00	6.....	10	40.00	23.....	14	77.00
10.....	10	40.00	6.....	10	50.00	23.....	12	66.00
12.....	9	45.00	6.....	9	45.00	23.....	12	66.00
12.....	10	40.00	6.....	10	40.00	23.....	9	49.00
13.....	20	80.00	7.....	10	40.00	23.....	9	47.00
13.....	9	45.00	9.....	20	80.00	24.....	10	40.00
13.....	9	45.00	9.....	20	80.00	25.....	40	220.00
15.....	10	40.00	9.....	19	95.00	25.....	12	66.00
16.....	24	96.00	11.....	9	45.00	25.....	12	66.00
16.....	20	80.00	13.....	12	59.00	25.....	10	55.00
16.....	10	40.00	13.....	10	40.00	25.....	9	36.00
16.....	10	40.00	13.....	9	36.00	25.....	10	55.00
16.....	10	40.00	13.....	10	40.00	25.....	10	50.00
16.....	20	80.00	14.....	15½	62.00	25.....	9	49.00
16.....	10	40.00	15.....	20	80.00	25.....	9	49.00
16.....	10	50.00	17.....	14	69.00	26.....	14	77.00
16.....	10	40.00	17.....	12	59.00	26.....	14	77.00
17.....	10	40.00	17.....	17	83.00	26.....	12	66.00
18.....	20	80.00	17.....	17	83.00	26.....	10	50.00
18.....	10	50.00	17.....	10	51.00	26.....	10	50.00
18.....	10	40.00	17.....	17	83.00	28.....	12	66.00
18.....	10	50.00	17.....	12	59.00	28.....	14	77.00
19.....	20	80.00	17.....	10	40.00	28.....	14	77.00
19.....	16	64.00	17.....	9	36.00	28.....	14	77.00
19.....	10	40.00	17.....	10	45.00	28.....	9	49.00
19.....	10	45.00	17.....	9	36.00	28.....	9	40.00
19.....	10	40.00	18.....	9	45.00	30.....	14	77.00
19.....	20	80.00	18.....	10	50.00	30.....	12	66.00
19.....	20	80.00	19.....	14	69.00	30.....	12	66.00
19.....	20	80.00	19.....	18	94.00	30.....	9	49.00
19.....	20	80.00	19.....	20	80.00	30.....	14	77.00
20.....	12	66.00	19.....	10	40.00	30.....	9	49.00
20.....	10	40.00	20.....	14	69.00	30.....	9	49.00
20.....	20	80.00	20.....	9	36.00	30.....	12	66.00
21.....	10	50.00	20.....	20	100.00	30.....	12	66.00
22.....	10	40.00	21.....	10	40.00	30.....	12	66.00
22.....	8	32.00	21.....	20	80.00	30.....	12	66.00
22.....	8	32.00	21.....	10	50.00	30.....	15	75.00
22.....	8	32.00	21.....	10	50.00	30.....	8	32.00
22.....	10	40.00	22.....	10	56.00	30.....	9	49.00
22.....	10	40.00	26.....	20	100.00	30.....	9	49.00
23.....	10	50.00	27.....	20	80.00	30.....	12	66.00
24.....	10	40.00	27.....	20	80.00	30.....	9	49.00
24.....	20	80.00	27.....	20	80.00	30.....	9	49.00
24.....	20	80.00	27.....	20	80.00	30.....	14	77.00
24.....	9	45.00	27.....	19	95.00	30.....	8	32.00
25.....	8	32.00	27.....	20	100.00	31.....	14	77.00
25.....	10	50.00	28.....	10	40.00	Aug. 1.....	9	36.00

Importations of pulp wood imported from Canada and entered at the port of St. Albans, Vt., between January 1, 1907, and June 1, 1908—Continued.

Date.	Quantity.	Value.	Date.	Quantity.	Value.	Date.	Quantity.	Value.
Aug. 1907.	Cords.		Aug. 1907.	Cords.		Aug. 1907.	Cords.	
1.....	9	\$36.00	14.....	14	\$77.00	25.....	12	\$66.00
1.....	9	36.00	19.....	14	77.00	25.....	14	77.00
1.....	10	50.00	19.....	9	49.00	25.....	10	55.00
1.....	10	55.00	19.....	9	49.00	25.....	10	55.00
5.....	9	49.00	19.....	12	66.00	25.....	10	60.00
5.....	12	66.00	19.....	9	49.00	25.....	10	60.00
5.....	14	77.00	19.....	12	66.00	25.....	10	60.00
5.....	14	77.00	19.....	12	66.00	25.....	10	60.00
5.....	12	66.00	19.....	12	66.00	25.....	10	60.00
5.....	14	77.00	19.....	12	66.00	25.....	10	60.00
6.....	14	77.00	19.....	14	77.00	25.....	10	55.00
6.....	12	66.00	19.....	12	66.00	25.....	10	55.00
6.....	14	77.00	19.....	12	66.00	25.....	10	55.00
6.....	14	77.00	19.....	12	66.00	25.....	10	55.00
6.....	9	49.00	19.....	9	48.00	25.....	10	55.00
6.....	12	66.00	19.....	9	49.00	25.....	9	50.00
6.....	9	49.00	19.....	12	66.00	26.....	12	66.00
6.....	12	66.00	19.....	9	49.00	26.....	14	77.00
6.....	12	66.00	19.....	12	66.00	26.....	14	77.00
6.....	12	66.00	19.....	14	77.00	26.....	14	77.00
6.....	12	66.00	19.....	12	66.00	26.....	12	66.00
6.....	12	66.00	19.....	12	66.00	26.....	9	49.00
6.....	14	77.00	19.....	12	66.00	26.....	14	77.00
6.....	12	66.00	19.....	12	66.00	26.....	10	55.00
6.....	12	66.00	19.....	9	49.00	26.....	9	49.00
6.....	14	77.00	19.....	9	49.00	26.....	9	49.00
6.....	14	77.00	19.....	12	66.00	26.....	9	49.00
6.....	9	49.00	20.....	10	60.00	26.....	8	44.00
6.....	12	66.00	20.....	10	60.00	26.....	14	77.00
6.....	14	77.00	20.....	9	49.00	26.....	12	66.00
9.....	10	40.00	21.....	10	55.00	26.....	10	55.00
9.....	10	55.00	21.....	10	55.00	26.....	12	66.00
9.....	10	55.00	22.....	12	66.00	26.....	12	66.00
9.....	10	55.00	22.....	9	49.00	26.....	10	55.00
9.....	10	55.00	22.....	12	66.00	26.....	10	55.00
9.....	10	55.00	22.....	12	66.00	26.....	10	55.00
9.....	10	55.00	22.....	9	48.00	26.....	10	55.00
9.....	12	66.00	22.....	12	66.00	26.....	10	55.00
9.....	12	66.00	22.....	10	55.00	26.....	10	55.00
9.....	12	66.00	22.....	12	66.00	27.....	10	50.00
9.....	10	55.00	22.....	12	66.00	27.....	14	77.00
9.....	10	55.00	22.....	9	49.00	27.....	14	77.00
10.....	10	55.00	22.....	14	77.00	27.....	14	77.00
11.....	12	66.00	22.....	12	66.00	27.....	14	77.00
11.....	14	77.00	22.....	14	77.00	27.....	12	66.00
11.....	12	66.00	22.....	12	66.00	27.....	12	66.00
11.....	14	77.00	22.....	12	66.00	27.....	12	66.00
11.....	9	49.00	22.....	12	66.00	27.....	12	66.00
11.....	9	49.00	22.....	12	66.00	27.....	12	66.00
11.....	9	49.00	22.....	12	66.00	27.....	12	66.00
11.....	9	49.00	22.....	9	48.00	27.....	12	66.00
11.....	9	49.00	22.....	10	55.00	27.....	12	66.00
11.....	10	55.00	22.....	10	55.00	27.....	12	66.00
11.....	10	55.00	22.....	11	61.00	27.....	12	66.00
11.....	10	55.00	22.....	10	55.00	27.....	9	49.00
12.....	12	66.00	22.....	10	55.00	27.....	10	60.00
12.....	12	66.00	22.....	10	55.00	27.....	10	55.00
14.....	12	66.00	22.....	10	55.00	29.....	10	55.00
14.....	14	77.00	23.....	9	50.00	29.....	10	55.00
14.....	14	77.00	23.....	12	66.00	29.....	10	55.00
14.....	12	66.00	24.....	10	50.00	29.....	12	66.00
14.....	12	66.00	25.....	14	77.00	29.....	9	50.00
14.....	12	66.00	25.....	9	49.00	30.....	10	55.00
14.....	14	77.00	25.....	14	77.00	31.....	14	77.00
14.....	12	66.00	25.....	14	77.00	31.....	14	77.00
14.....	12	66.00	25.....	12	66.00	31.....	12	66.00
14.....	14	77.00	25.....	12	66.00	31.....	12	66.00
14.....	14	77.00	25.....	14	77.00	31.....	12	66.00
14.....	9	49.00	25.....	9	50.00	31.....	9	49.00
14.....	9	49.00	25.....	12	66.00	31.....	9	49.00
14.....	10	40.00	25.....	9	49.00	31.....	9	49.00
14.....	10	55.00	25.....	14	77.00	31.....	10	60.00
14.....	10	55.00	25.....	12	66.00	Sept. 1.....	12	72.00
14.....	10	55.00	25.....	14	77.00	1.....	10	55.00
16.....	10	55.00	25.....	14	77.00	1.....	10	55.00
16.....	10	55.00	25.....	14	77.00	1.....	10	55.00
19.....	10	55.00	25.....	12	66.00	2.....	12	66.00
19.....	12	66.00	25.....	9	49.00	2.....	12	66.00

Imports of pulp wood imported from Canada and entered at the port of St. Albans, Vt., between January 1, 1907, and June 1, 1908—Continued.

Date.	Quantity.	Value.	Date.	Quantity.	Value.	Date.	Quantity.	Value.
1907.	Cords.		1907.	Cords.		1907.	Cords.	
Sept. 2.	14	\$77.00	Sept. 9.	12	\$66.00	Sept. 22.	10	\$55.00
2.	12	66.00	9.	14	77.00	22.	10	55.00
2.	12	66.00	9.	9	80.00	22.	10	55.00
2.	9	49.00	9.	12	66.00	22.	10	55.00
2.	9	49.00	9.	12	66.00	22.	10	55.00
2.	12	66.00	9.	10	55.00	22.	10	55.00
2.	12	66.00	9.	12	66.00	22.	10	55.00
2.	10	55.00	9.	12	66.00	23.	12	66.00
2.	10	55.00	9.	12	66.00	23.	14	77.00
2.	10	55.00	9.	9	50.00	23.	9	49.00
2.	10	55.00	9.	12	66.00	23.	12	66.00
2.	10	55.00	9.	10	55.00	23.	12	66.00
2.	10	55.00	10.	10	60.00	23.	12	66.00
2.	9	49.00	10.	10	55.00	23.	12	66.00
3.	12	66.00	10.	10	55.00	23.	14	77.00
3.	9	50.00	11.	10	66.00	23.	9	49.00
3.	10	55.00	12.	10	55.00	23.	12	66.00
3.	10	55.00	12.	10	55.00	23.	10	55.00
4.	10	55.00	12.	10	55.00	23.	12	66.00
4.	10	55.00	12.	10	55.00	23.	12	66.00
4.	10	55.00	13.	9	49.00	23.	12	66.00
4.	10	55.00	13.	12	66.00	23.	9	49.00
4.	10	55.00	13.	12	66.00	24.	12	66.00
4.	10	55.00	13.	14	77.00	24.	14	77.00
4.	10	55.00	13.	12	66.00	24.	9	49.00
4.	10	55.00	13.	12	66.00	24.	12	66.00
4.	12	66.00	13.	10	55.00	24.	10	55.00
4.	12	66.00	13.	10	55.00	24.	10	55.00
4.	12	66.00	13.	10	55.00	24.	10	55.00
4.	12	66.00	13.	10	55.00	26.	12	66.00
4.	12	66.00	13.	14	77.00	26.	9	49.00
4.	9	49.00	13.	12	66.00	26.	12	66.00
4.	14	77.00	13.	9	50.00	26.	12	66.00
4.	14	77.00	13.	14	77.00	26.	14	77.00
4.	12	66.00	14.	10	55.00	26.	12	66.00
4.	9	49.00	15.	10	50.00	26.	14	77.00
4.	9	49.00	15.	10	50.00	26.	10	55.00
4.	12	66.00	15.	10	50.00	26.	10	55.00
4.	9	49.00	15.	10	50.00	26.	10	55.00
4.	12	66.00	15.	10	50.00	26.	10	55.00
4.	12	66.00	15.	10	50.00	26.	10	55.00
4.	12	66.00	15.	10	60.00	26.	10	55.00
4.	12	66.00	16.	9	50.00	26.	10	55.00
4.	14	77.00	16.	12	66.00	26.	10	60.00
4.	9	50.00	16.	9	50.00	26.	10	55.00
4.	12	66.00	16.	9	50.00	26.	10	55.00
4.	14	77.00	16.	12	66.00	26.	10	55.00
4.	12	66.00	16.	10	66.00	29.	14	77.00
4.	10	55.00	16.	9	50.00	29.	14	77.00
4.	10	55.00	16.	14	77.00	29.	14	77.00
5.	10	55.00	16.	12	66.00	29.	14	77.00
5.	10	55.00	16.	12	66.00	29.	14	77.00
5.	10	55.00	16.	12	66.00	29.	12	66.00
5.	10	55.00	16.	9	50.00	29.	12	66.00
6.	10	45.00	16.	12	66.00	29.	12	66.00
7.	9	49.00	16.	12	66.00	29.	12	66.00
7.	12	66.00	16.	10	55.00	29.	12	66.00
7.	9	50.00	20.	12	66.00	29.	12	66.00
7.	9	50.00	20.	14	77.00	29.	12	66.00
7.	9	49.00	20.	12	66.00	29.	12	66.00
7.	9	49.00	20.	12	66.00	29.	9	49.00
7.	10	55.00	20.	12	66.00	29.	9	49.00
7.	14	77.00	20.	10	55.00	29.	10	55.00
7.	14	77.00	20.	10	55.00	29.	10	55.00
7.	14	77.00	20.	10	50.00	30.	10	50.00
7.	14	77.00	20.	10	55.00	30.	10	55.00
7.	12	66.00	20.	10	55.00	30.	10	60.00
7.	12	66.00	20.	10	55.00	Oct. 2.	14	77.00
7.	10	55.00	20.	10	55.00	2.	10	55.00
7.	10	55.00	20.	12	66.00	2.	10	55.00
7.	10	55.00	20.	9	49.00	2.	10	55.00
7.	10	55.00	20.	12	66.00	2.	10	55.00
7.	10	55.00	20.	12	66.00	3.	10	50.00
7.	10	55.00	20.	12	66.00	3.	10	50.00
7.	10	55.00	20.	10	60.00	4.	10	50.00
7.	9	50.00	20.	10	60.00	4.	10	50.00
9.	10	55.00	20.	15	68.00	4.	10	55.00
9.	12	66.00	22.	14	77.00	4.	10	55.00
9.	12	66.00	22.	9	49.00	4.	10	55.00
9.	14	77.00	22.	10	40.00	5.	14	77.00

Importations of pulp wood imported from Canada and entered at the port of St. Albans, Vt., between January 1, 1907, and June 1, 1908—Continued.

Date.	Quantity.	Value.	Date.	Quantity.	Value.	Date.	Quantity.	Value.
Oct. 1907.	Cords.		Nov. 1907.	Cords.		Feb. 1908.	Cords.	
5.....	14	\$77.00	24.....	10	\$60.00	24.....	10	\$65.00
5.....	9	49.00	24.....	10	55.00	25.....	50	275.00
5.....	14	77.00	30.....	10	60.00	25.....	10	55.00
5.....	9	49.00	Dec. 2.....	10	50.00	25.....	10	55.00
5.....	12	66.00	3.....	10	50.00	25.....	10	55.00
5.....	14	77.00	3.....	10	50.00	25.....	10	55.00
5.....	9	49.00	3.....	10	50.00	25.....	10	55.00
5.....	12	66.00	5.....	18	99.00	25.....	10	55.00
5.....	9	49.00	5.....	10	50.00	25.....	10	55.00
5.....	12	66.00	10.....	13	75.00	25.....	10	55.00
5.....	12	66.00	10.....	12	66.00	25.....	10	55.00
5.....	12	66.00	10.....	10	45.00	25.....	10	55.00
5.....	14	77.00	11.....	10	55.00	25.....	12	48.00
5.....	9	49.00	11.....	15	83.00	25.....	10	55.00
5.....	14	77.00	12.....	10	55.00	25.....	11	59.00
5.....	10	55.00	14.....	10	60.00	25.....	8	39.00
5.....	10	40.00	14.....	9	69.00	25.....	10 1/2	53.00
7.....	10	55.00	14.....	10	65.00	25.....	15	75.00
7.....	10	50.00	14.....	12	75.00	25.....	13	65.00
7.....	10	60.00	14.....	12	75.00	25.....	11 1/2	55.00
7.....	10	50.00	14.....	12	66.00	25.....	10	45.00
7.....	10	50.00	17.....	12	75.00	25.....	9	45.00
10.....	14	77.00	19.....	10	55.00	26.....	50	165.00
10.....	9	49.00	19.....	10	50.00	26.....	10	55.00
10.....	14	77.00	19.....	15	84.00	26.....	10	55.00
10.....	12	66.00	20.....	10	60.00	26.....	10	55.00
10.....	14	77.00	20.....	10	60.00	26.....	10	55.00
10.....	14	77.00	23.....	12	72.00	26.....	10	55.00
10.....	14	77.00	23.....	10	60.00	26.....	10	55.00
10.....	12	60.00				26.....	10	55.00
10.....	10	55.00	Jan. 6.....	10	55.00	26.....	10	55.00
12.....	10	55.00	13.....	13	65.00	26.....	10	55.00
12.....	10	50.00	14.....	9	46.00	27.....	40	220.00
13.....	10	50.00	14.....	9	45.00	27.....	10	55.00
13.....	10	50.00	14.....	9	45.00	27.....	10	55.00
13.....	10	50.00	16.....	9	45.00	27.....	10	55.00
13.....	10	50.00	18.....	10	55.00	27.....	10	55.00
13.....	10	50.00	18.....	10	55.00	27.....	10	55.00
13.....	10	50.00	18.....	10	55.00	27.....	10	55.00
13.....	10	50.00	18.....	10	55.00	27.....	10	55.00
13.....	10	50.00	20.....	9	36.00	28.....	40	220.00
13.....	10	50.00	21.....	10	60.00	28.....	30	165.00
13.....	10	50.00	25.....	10	50.00	28.....	10	60.00
13.....	10	50.00	25.....	9	45.00	28.....	10	60.00
13.....	10	50.00	25.....	10	50.00	28.....	10	55.00
13.....	10	50.00	31.....	10	66.00	28.....	10	55.00
13.....	10	50.00	31.....	12	60.00	28.....	10	55.00
13.....	10	50.00	Feb. 1.....	11	55.00	28.....	10	55.00
13.....	10	50.00	1.....	8	40.00	28.....	10	55.00
15.....	10	50.00	1.....	8	50.00	28.....	10	55.00
15.....	10	50.00	10.....	10	70.00	Mar. 2.....	10	60.00
15.....	10	50.00	11.....	10	50.00	2.....	10	60.00
16.....	12	66.00	11.....	10	50.00	2.....	10	60.00
16.....	14	77.00	11.....	10	50.00	2.....	10	60.00
16.....	14	77.00	11.....	10	50.00	2.....	10	60.00
18.....	14	90.00	11.....	10	50.00	2.....	10	55.00
18.....	10	55.00	11.....	10	50.00	2.....	10	55.00
18.....	12	72.00	13.....	10	50.00	2.....	10	55.00
18.....	14	77.00	15.....	10	50.00	2.....	10	55.00
19.....	9	45.00	17.....	10	50.00	2.....	10	55.00
19.....	10	50.00	17.....	10	55.00	2.....	10	55.00
20.....	9	50.00	17.....	10	55.00	2.....	10	50.00
21.....	10	55.00	17.....	10	60.00	2.....	10	50.00
24.....	10	55.00	18.....	10	55.00	2.....	10	50.00
24.....	10	55.00	18.....	20	110.00	2.....	10	50.00
24.....	10	55.00	19.....	10	45.00	2.....	10	50.00
25.....	12	66.00	19.....	11	55.00	2.....	10	50.00
26.....	10	55.00	19.....	10	55.00	2.....	10	50.00
26.....	10	55.00	19.....	10	60.00	2.....	10	55.00
29.....	10	55.00	19.....	10	60.00	3.....	10	55.00
29.....	10	50.00	19.....	10	60.00	3.....	10	55.00
29.....	10	50.00	19.....	10	55.00	3.....	10	55.00
Nov. 1.....	9	40.00	19.....	50	275.00	3.....	10	55.00
6.....	10	55.00	20.....	10	60.00	3.....	10	55.00
8.....	14	56.00	20.....	10	50.00	3.....	10	55.00
9.....	12	66.00	22.....	10	55.00	3.....	10	55.00
11.....	10	60.00	22.....	10	55.00	3.....	10	55.00
16.....	10	55.00	22.....	10	55.00	3.....	10	55.00
19.....	10	60.00	22.....	10	55.00	3.....	10	55.00
23.....	10	55.00	24.....	10	65.00	3.....	10	55.00

Importations of pulp wood imported from Canada and entered at the port of St. Albans, Vt., between January 1, 1907, and June 1, 1908—Continued.

[illegible]

*Importations of pulp wood imported from Canada and entered at the port of St. Albans, Vt.,
between January 1, 1907, and June 1, 1908—Continued.*

Date.	Quantity.	Value.	Date.	Quantity.	Value.	Date.	Quantity.	Value.
Apr. 1908.	<i>Cords.</i>		Apr. 1908.	<i>Cords.</i>		Apr. 1908.	<i>Cords.</i>	
2	10	\$55.00	10	10	\$50.00	15	10	\$55.00
2	12	72.00	10	10	50.00	15	10	55.00
3	10	55.00	10	10	50.00	15	10	55.00
3	10	55.00	10	10	50.00	15	10	55.00
3	10	55.00	10	10	50.00	15	10	55.00
3	10	55.00	10	10	50.00	16	10	50.00
3	10	55.00	10	10	55.00	16	10	50.00
4	10	55.00	10	10	55.00	16	10	50.00
4	10	55.00	10	10	55.00	16	10	50.00
4	10 ¹	53.00	10	10	55.00	16	10	50.00
4	12	72.00	10	10	55.00	16	10	50.00
4	9	45.00	10	10	55.00	16	10	50.00
4	10	45.00	10	10	55.00	16	10	50.00
4	10	45.00	10	10	55.00	16	10	50.00
4	10	50.00	10	10	55.00	16	10	50.00
4	12	72.00	10	10	55.00	16	10	50.00
4	10	55.00	10	10	50.00	16	10	50.00
4	10	55.00	10	10	55.00	16	10	50.00
4	10	55.00	10	10	55.00	16	10	55.00
5	10	70.00	10	10	55.00	16	10	50.00
5	10	70.00	10	10	55.00	16	10	55.00
5	10	70.00	10	10	55.00	16	10 ¹	53.00
5	10	70.00	10	10	55.00	16	12	60.00
5	10	55.00	10	10	55.00	16	10	60.00
6	10	50.00	11	30	165.00	16	10	60.00
6	10	50.00	11	10	55.00	16	10	50.00
6	10	50.00	11	10	55.00	17	10	55.00
6	10	50.00	11	10	55.00	17	20	110.00
6	10	50.00	11	10	55.00	17	10	55.00
6	10	60.00	11	10	55.00	17	10	55.00
6	10	60.00	11	10	50.00	17	10	55.00
6	10	60.00	11	10	50.00	17	10	50.00
6	10	50.00	11	10	55.00	17	20	110.00
6	10	55.00	11	12	60.00	17	10	55.00
7	40	280.00	11	10	55.00	17	10	55.00
7	20	140.00	11	10	55.00	17	10	55.00
7	20	140.00	13	10	50.00	17	10	55.00
7	10	50.00	13	10	50.00	17	10	50.00
7	10	50.00	13	10	50.00	17	10	50.00
7	10	50.00	13	10	50.00	17	10	50.00
7	10	50.00	13	10	50.00	17	10	50.00
7	10	50.00	13	10	50.00	18	20	110.00
7	10	50.00	13	10	50.00	18	70	385.00
7	10	50.00	13	10	50.00	18	30	165.00
7	10	55.00	13	10	50.00	18	70	420.00
7	10	55.00	13	10	60.00	18	10	50.00
7	10	55.00	13	10	60.00	18	10	50.00
7	10	55.00	13	10	55.00	18	10	50.00
7	10	55.00	13	10	55.00	18	10	50.00
7	10	50.00	13	10	55.00	18	10	50.00
7	10	50.00	13	10	55.00	18	10	50

*Importations of pulp wood imported from Canada and entered at the port of St. Albans, Vt.,
between January 1, 1907, and June 1, 1908—Continued.*

[illegible]

Importations of pulp wood imported from Canada and entered at the port of St. Albans, Vt., between January 1, 1907, and June 1, 1908—Continued.

Date.	Quantity.	Value.	Date.	Quantity.	Value.	Date.	Quantity.	Value.
1908.	Cords.		1908.	Cords.		1908.	Cords.	
May 18.	10	\$55.00	May 23.	10	\$55.00	May 25.	10	\$55.00
18.	10	55.00	23.	9	54.00	25.	10	55.00
18.	10	55.00	23.	10	60.00	25.	10	55.00
18.	40	220.00	24.	10	55.00	25.	10	55.00
19.	10	55.00	24.	10	55.00	25.	10	55.00
20.	10	55.00	24.	10	55.00	25.	20	120.00
20.	10	55.00	24.	10	55.00	25.	10	55.00
21.	10	55.00	24.	10	50.00	25.	10	55.00
21.	30	165.00	24.	10	50.00	25.	10	55.00
21.	50	275.00	24.	10	50.00	25.	10	55.00
21.	10	55.00	24.	10	50.00	25.	10	55.00
21.	10	55.00	24.	10	50.00	25.	10	55.00
21.	10	60.00	24.	10	50.00	25.	10	55.00
21.	10	60.00	24.	30	150.00	25.	10	55.00
21.	10	60.00	24.	10	50.00	25.	10	55.00
21.	10	60.00	24.	10	50.00	25.	10	55.00
21.	10	55.00	24.	10	50.00	25.	10	55.00
21.	10	55.00	24.	10	50.00	25.	10	55.00
21.	10	55.00	24.	10	50.00	25.	10	55.00
21.	10	55.00	24.	10	55.00	25.	10	55.00
22.	10	55.00	24.	10	55.00	27.	10	55.00
22.	10	55.00	24.	10	55.00	27.	10	55.00
22.	10	55.00	24.	10	55.00	28.	10	60.00
22.	10	55.00	24.	10	55.00	28.	30	165.00
22.	10	55.00	24.	10	55.00	28.	10	55.00
22.	10	55.00	24.	10	55.00	28.	10	55.00
22.	10	55.00	24.	10	55.00	28.	10	55.00
22.	40	220.00	24.	10	55.00	28.	10	60.00
22.	10	55.00	24.	10	55.00	28.	10	60.00
22.	10	55.00	24.	10	55.00	28.	10	60.00
22.	10	55.00	24.	13	78.00	28.	10	60.00
22.	10	55.00	24.	10	55.00	28.	10	60.00
22.	10	55.00	24.	10	55.00	28.	10	55.00
22.	10	55.00	24.	10	55.00	28.	10	55.00
23.	70	385.00	24.	7	35.00	28.	10	55.00
23.	30	165.00	25.	10	60.00	28.	10	55.00
23.	20	110.00	25.	10	60.00	28.	10	55.00
23.	10	55.00	25.	10	60.00	29.	10	55.00
23.	10	55.00	25.	10	55.00	29.	10	55.00

RECAPITULATION.

Date.	Quantity.	Value.
1907.	Cords.	
January.....	71	\$312.00
February.....	3204	1,292.00
March.....	427	1,775.00
April.....	917	3,789.00
May.....	1,364	5,736.00
June.....	873	3,970.00
July.....	935	4,908.00
August.....	2,629	14,396.00
September.....	2,578	14,153.00
October.....	926	4,939.00
November.....	115	632.00
December.....	292	1,644.00
1908.		
January.....	160	\$40.00
February.....	1,017	5,534.00
March.....	2,634	14,521.00
April.....	5,850	31,913.00
May.....	5,149	28,015.00
	26,270	138,209.00

PORT OF RICHFORD, VT.

Importations of wood pulp, mechanically ground, from Canada, at the port of Richford, Vt., from January 1, 1907, to June 1, 1908, under paragraph 393.

Date of arrival.	Quantity.	Value.	Duties.	Additional duties.	Date of arrival.	Quantity.	Value.	Duties.	Additional duties.
1907.	<i>Pounds.</i>				1907.	<i>Pounds.</i>			
Jan. 1	90,300	\$564.00	\$75.25	\$11.29	Sept. 25	86,400	\$518.00	\$72.00	-----
9	86,022	602.00	71.69	-----	Oct. 4	57,600	346.00	48.00	-----
10	37,800	428.00	31.60	-----	7	28,800	173.00	24.00	-----
18	72,450	507.00	60.38	-----	8	38,400	230.00	32.00	-----
18	40,131	267.00	33.44	-----	9	28,800	173.00	24.00	-----
18	30,880	216.00	25.72	-----	14	28,800	173.00	24.00	-----
18	93,051	651.00	77.54	-----	15	19,200	115.00	16.00	-----
18	63,675	423.00	53.06	-----	17	19,200	115.00	16.00	-----
26	49,600	347.00	41.33	-----	22	18,009	225.00	15.01	-----
Feb. 9	75,600	473.00	63.00	9.45	24	48,000	288.00	40.00	-----
11	54,990	622.00	45.83	-----	29	28,800	173.00	24.00	-----
11	32,760	371.00	27.30	-----	Nov. 1	86,400	518.00	72.00	-----
20	37,800	428.00	31.60	-----	6	76,800	461.00	64.00	-----
20	33,390	378.00	27.83	-----	20	19,200	115.00	16.00	-----
22	37,800	428.00	31.60	-----	25	86,400	518.00	72.00	-----
23	81,877	928.00	68.23	-----	27	28,800	173.00	24.00	-----
Mar. 6	32,760	371.00	27.30	-----	29	57,600	346.00	48.00	-----
7	60,200	346.00	50.17	7.53	Dec. 6	62,485	437.00	62.07	\$7.81
15	81,000	632.00	67.60	10.13	7	30,250	212.00	25.21	8.78
15	60,200	346.00	50.17	7.53	9	72,000	432.00	60.00	-----
21	90,300	564.00	75.25	11.29	13	57,600	346.00	48.00	-----
21	51,750	404.00	43.13	6.47	14	28,800	173.00	24.00	-----
28	60,200	346.00	50.17	7.53	21	86,400	518.00	72.00	-----
29	22,500	176.00	18.75	2.81	31	86,400	518.00	72.00	-----
Apr. 1	60,200	346.00	50.17	7.53					
16	54,000	421.00	45.00	6.75	1908.				
22	33,600	202.00	28.00	-----	Jan. 11	48,000	288.00	40.00	-----
22	54,000	421.00	45.00	-----	13	19,200	115.00	16.00	-----
May 8	48,000	288.00	40.00	-----	22	76,800	461.00	64.00	-----
23	72,000	432.00	60.00	-----	29	76,800	461.00	64.00	-----
29	28,800	173.00	24.00	-----	Feb. 18	37,170	402.00	38.98	-----
June 11	24,000	144.00	20.00	-----	20	24,366	276.00	20.31	-----
11	62,400	374.00	52.00	-----	Apr. 7	57,600	346.00	48.00	-----
15	76,800	461.00	64.00	-----	20	48,000	288.00	40.00	-----
July 6	86,400	518.00	72.00	-----	May 16	76,800	461.00	64.00	-----
18	57,600	346.00	48.00	-----					
Aug. 9	86,400	518.00	72.00	-----	Total..	3,841,496	26,300.00	3,209.29	99.90
Sept. 16	74,400	446.00	62.00	-----					

No importations of filter masse or filter stock to Richford, Vt., under paragraph 395.

White news printing paper imported from Canada at Richford, Vt., from January 1, 1907, to June 1, 1908, under paragraph 396.

Date of arrival.	Quantity.	Value.	Duties.	Date of arrival.	Quantity.	Value.	Duties.
1907.	<i>Pounds.</i>			1908.	<i>Pounds.</i>		
Feb. 1.....	230	\$6.00	\$1.15	May 4.....	132,623	\$2,453.00	\$397.87
Apr. 15.....	39,717	715.00	119.15	7.....	94,191	1,790.00	282.57
15.....	5,400	115.00	21.84	7.....	96,376	1,831.00	289.13
				14.....	85,046	1,616.00	255.14
1908.				15.....	135,932	2,583.00	407.80
Apr. 14.....	96,346	1,764.00	286.04	16.....	81,190	1,543.00	243.67
15.....	47,294	875.00	141.88	19.....	42,047	799.00	126.14
16.....	48,450	896.00	145.35	23.....	94,786	1,801.00	284.35
22.....	74,499	1,751.00	223.50	25.....	43,764	832.00	131.29
25.....	80,336	1,486.00	241.01				
25.....	83,109	1,538.00	249.33	Total.....	1,329,779	25,308.00	3,995.27
30.....	49,383	914.00	145.15				

Importations of spruce pulp wood from Canada at Richford, Vt., from January 1, 1907, to June 1, 1908, under paragraph 699.

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1907.	Cords.		1907.	Cords.		1908.	Cords.	
Jan. 1.	18	\$90.00	June 1.	20	\$80.00	Jan. 27.	12	\$72.00
1.	9	45.00	1.	20	80.00	27.	16	96.00
1.	9	45.00	3.	10	45.00	27.	16	96.00
2.	18	90.00	3.	20	90.00	27.	10	70.00
2.	18	90.00	5.	10	50.00	27.	12	66.00
2.	10	40.00	5.	10	50.00	27.	12	66.00
2.	20	80.00	5.	20	90.00	27.	12	66.00
2.	20	80.00	7.	10	40.00	27.	12	66.00
2.	10	50.00	28.	30	180.00	28.	12	66.00
2.	20	80.00	3.	10	60.00	28.	12	66.00
5.	12	66.00	3.	10	60.00	28.	12	66.00
5.	10	55.00	7.	40	240.00	29.	12	66.00
7.	10	50.00	7.	10	60.00	29.	10	70.00
8.	10	50.00	10.	10	60.00	30.	12	72.00
8.	9	45.00	10.	30	180.00	30.	16	96.00
8.	18	90.00	12.	10	55.00	30.	12	72.00
8.	18	90.00	16.	40	240.00	31.	12	72.00
10.	54	270.00	19.	10	60.00	Feb. 1.	9	50.00
10.	9	36.00	20.	10	60.00	3.	10	70.00
10.	10	60.00	20.	10	60.00	5.	11	66.00
10.	12	60.00	21.	10	60.00	5.	11	71.00
14.	45	225.00	21.	10	60.00	7.	12	78.00
16.	20	100.00	25.	10	60.00	7.	12	78.00
16.	9	45.00	25.	10	60.00	7.	11	66.00
16.	9	36.00	26.	30	180.00	7.	8	48.00
17.	20	96.00	27.	10	55.00	8.	12	72.00
17.	10	49.00	27.	10	60.00	8.	12	72.00
17.	18	72.00	27.	10	60.00	8.	11	68.00
17.	18	72.00	30.	10	60.00	11.	10	70.00
17.	20	96.00	3.	10	60.00	11.	10	60.00
29.	10	40.00	4.	10	55.00	11.	11	71.00
Feb. 8.	36	180.00	4.	10	60.00	13.	10	62.00
8.	9	45.00	4.	10	60.00	14.	12	78.00
16.	9	45.00	8.	10	55.00	14.	12	72.00
18.	45	225.00	30.	10	60.00	14.	12	72.00
18.	9	45.00	Nov. 1.	12	72.00	14.	10	70.00
26.	18	90.00	1.	12	72.00	15.	10	60.00
26.	18	90.00	4.	12	72.00	15.	10	60.00
26.	18	90.00	14.	12	72.00	15.	12	72.00
26.	9	45.00	15.	10	55.00	15.	10	60.00
26.	10	50.00	19.	10	55.00	15.	10	60.00
Mar. 2.	20	80.00	Dec. 14.	15	75.00	15.	10	70.00
4.	18	90.00	25.	9	67.00	15.	12	66.00
4.	18	90.00	25.	10	45.00	15.	9	50.00
12.	9	45.00	27.	9	40.00	17.	14	84.00
14.	10	40.00				17.	10	60.00
15.	9	45.00	1908.			18.	12	72.00
21.	12	66.00	Jan. 2.	9	54.00	18.	12	72.00
21.	12	66.00	6.	9	45.00	19.	12	66.00
22.	10	45.00	7.	11	82.00	19.	12	66.00
25.	12	66.00	8.	10	60.00	19.	12	66.00
25.	9	50.00	8.	10	60.00	19.	12	66.00
26.	10	40.00	8.	9	63.00	19.	9	50.00
26.	9	45.00	10.	10	45.00	20.	10	60.00
27.	12	66.00	15.	10	70.00	20.	10	55.00
27.	12	66.00	15.	12	86.00	20.	10	60.00
27.	12	66.00	15.	12	84.00	20.	12	72.00
27.	12	66.00	16.	10	60.00	20.	10	60.00
27.	12	66.00	18.	12	75.00	20.	14	84.00
Apr. 9.	9	51.00	20.	12	66.00	21.	9	54.00
11.	12	66.00	20.	12	66.00	21.	13	78.00
15.	10	45.00	21.	12	66.00	21.	13	78.00
15.	10	45.00	22.	12	66.00	21.	12	72.00
17.	20	80.00	22.	12	66.00	21.	10	63.00
24.	9	45.00	22.	12	66.00	21.	10	63.00
24.	20	80.00	22.	11	68.00	22.	9	54.00
24.	20	80.00	23.	16	90.00	24.	10	60.00
24.	10	30.00	23.	12	72.00	24.	12	75.00
25.	20	60.00	23.	12	72.00	24.	10	63.00
25.	10	30.00	23.	12	72.00	24.	12	72.00
May 7.	20	60.00	23.	12	72.00	24.	12	72.00
7.	10	40.00	24.	10	62.00	25.	60	\$30.00
9.	20	100.00	24.	12	72.00	25.	11	66.00
9.	20	90.00	24.	16	96.00	25.	8	48.00
11.	10	80.00	24.	12	72.00	25.	13	78.00
11.	20	100.00	24.	12	66.00	25.	13	78.00
14.	10	30.00	24.	12	66.00	25.	10	62.00
15.	10	40.00	24.	12	66.00	25.	10	62.00
15.	10	40.00	25.	9	50.00	25.	15	90.00
22.	8	40.00	27.	10	63.00	25.	10	60.00

Importations of spruce pulp wood from Canada at Richford, Vt., from January 1, 1907, to June 1, 1908, under paragraph 699—Continued.

Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.	Date of arrival.	Quantity.	Value.
1908.	<i>Cords.</i>		1908.	<i>Cords.</i>		1908.	<i>Cords.</i>	
Feb. 25.....	10	\$60.00	Mar. 12.....	12	\$72.00	Mar. 20.....	12	\$72.00
25.....	10	60.00	12.....	12	72.00	20.....	11½	45.00
26.....	12	72.00	12.....	12	72.00	20.....	11½	45.00
26.....	12	72.00	12.....	12	66.00	20.....	13	78.00
27.....	14	84.00	12.....	12	60.00	20.....	12	72.00
27.....	10	60.00	13.....	10	60.00	20.....	12	72.00
27.....	12	66.00	13.....	12	72.00	20.....	8	45.00
27.....	9	54.00	14.....	12	72.00	20.....	11½	45.00
27.....	12	72.00	14.....	13	78.00	21.....	12	72.00
28.....	12	66.00	14.....	10	60.00	21.....	12	60.00
28.....	36	198.00	14.....	10	60.00	21.....	14	84.00
28.....	10	60.00	14.....	12	66.00	21.....	14	84.00
28.....	10	60.00	14.....	12	66.00	23.....	12	66.00
28.....	12	72.00	14.....	12	66.00	23.....	12	66.00
29.....	12	66.00	14.....	12	66.00	25.....	12	66.00
29.....	12	66.00	16.....	9	50.00	26.....	14	84.00
29.....	10	60.00	16.....	12	66.00	30.....	14	63.00
29.....	10	60.00	16.....	12	66.00	Apr. 2.....	10	60.00
29.....	12	72.00	16.....	9	50.00	2.....	14	84.00
29.....	13	78.00	16.....	12	66.00	21.....	12	72.00
Mar. 1.....	10½	53.00	16.....	12	66.00	21.....	8	45.00
1.....	12	66.00	16.....	12	66.00	27.....	9	54.00
1.....	12	66.00	16.....	12	66.00	27.....	9	54.00
1.....	12	66.00	16.....	12	66.00	27.....	9	54.00
1.....	221	116.00	16.....	9	54.00	28.....	9	54.00
3.....	36	198.00	16.....	9	54.00	28.....	9	54.00
4.....	12	70.00	16.....	10½	63.00	28.....	9	54.00
4.....	10	60.00	16.....	10	60.00	29.....	10	60.00
5.....	10½	63.00	16.....	10	60.00	29.....	10	60.00
5.....	10½	63.00	16.....	13	78.00	29.....	10	60.00
5.....	10	60.00	16.....	12	72.00	29.....	10	60.00
6.....	8	48.00	16.....	10	60.00	29.....	9	45.00
6.....	10½	63.00	16.....	10	60.00	29.....	9	45.00
7.....	14	84.00	17.....	14	84.00	29.....	9	45.00
7.....	14	84.00	17.....	14	84.00	30.....	10	60.00
7.....	10	50.00	17.....	10	60.00	30.....	10	60.00
9.....	12	72.00	17.....	14	84.00	May 1.....	9	54.00
9.....	12	72.00	17.....	10½	63.00	2.....	12	60.00
9.....	12	72.00	18.....	10	60.00	2.....	13	65.00
10.....	12	72.00	18.....	10	60.00	2.....	12	60.00
10.....	12	70.00	18.....	10	60.00	6.....	8	45.00
11.....	12½	75.00	18.....	10	60.00	6.....	12	60.00
11.....	10	60.00	18.....	9	50.00	8.....	12	60.00
12.....	10	60.00	18.....	12	66.00	8.....	10	65.00
12.....	13	78.00	18.....	9	54.00	13.....	10	60.00
12.....	12	72.00	19.....	12	72.00	14.....	9	54.00
12.....	12	72.00	19.....	9	50.00	Total.....	5,021½	25,577.00
12.....	12	72.00	20.....	10	60.00			
12.....	11	66.00	20.....	10	60.00			

PORT OF NEWPORT, VT.

Mechanically ground and chemically unbleached pulp of wood imported into the district of Memphremagog (Newport, Vt., port of entry), from January 1, 1907, to June 1, 1908, from the Dominion of Canada, under paragraph 393.

MECHANICALLY GROUND PULP OF WOOD.

Date.	Quantity.	Value.	Duty.	Countervailing duty (paragraph 393).	
				Quantity.	Duty.
1907.	<i>Pounds.</i>			<i>Cords.</i>	
January 1.....	44,598	\$201.00	\$37.17		
Do.....	86,899	391.00	72.42		
Do.....	42,463	191.00	35.39		
Do.....	54,772	246.00	45.64		
Do.....	50,077	225.00	41.73		
Do.....	35,440	159.00	29.53		
Do.....	52,062	234.00	43.39		
Do.....	121,970	549.00	101.64		
Do.....	41,140	185.00	34.28		

Mechanically ground and chemically unbleached pulp of wood imported into the district of Memphremagog (Newport, Vt., port of entry), from January 1, 1907, to June 1, 1908, from the Dominion of Canada, under paragraph 393—Continued.

MECHANICALLY GROUND PULP OF WOOD—Continued.

Date.	Quantity.	Value.	Duty.	Countervailing duty (paragraph 393).	
				Quantity.	Duty.
1907.	Pouids.			Cords.	
January 2.....	23,496	\$82.00	\$19.58		
Do.....	24,403	85.00	20.34		
Do.....	24,105	84.00	20.09		
Do.....	36,958	166.00	30.80		
Do.....	48,681	219.00	40.57		
Do.....	48,307	217.00	40.26		
Do.....	35,000	223.00	29.17		
Do.....	73,564	331.00	61.30		
Do.....	36,207	163.00	30.17		
January 3.....	36,063	162.00	30.05		
Do.....	37,338	168.00	31.12		
Do.....	99,077	446.00	82.56		
Do.....	44,900	202.00	37.42		
Do.....	72,550	326.00	60.46		
January 5.....	19,751	69.00	16.46		
Do.....	140,200	1,157.00	116.83	40.38	\$10.10
Do.....	95,699	789.00	79.75	27.56	6.89
Do.....	37,329	168.00	31.11		
Do.....	77,205	347.00	64.34		
January 7.....	26,932	94.00	22.44		
Do.....	69,142	657.00	57.62	19.91	4.98
January 8.....	22,599	79.00	18.83		
Do.....	43,450	217.00	36.21		
Do.....	74,166	779.00	61.81	21.36	5.34
Do.....	43,558	196.00	36.30		
Do.....	67,413	303.00	58.18		
Do.....	72,681	327.00	60.57		
January 9.....	60,612	500.00	50.51	17.45	4.37
January 10.....	34,435	155.00	28.70		
Do.....	62,308	235.00	43.59		
Do.....	42,333	190.00	35.28		
Do.....	84,915	157.00	29.10		
Do.....	43,690	197.00	36.41		
Do.....	48,667	219.00	40.56		
Do.....	36,010	162.00	30.01		
Do.....	34,540	155.00	28.78		
Do.....	21,177	74.00	17.65		
Do.....	24,916	112.00	20.76		
Do.....	49,444	519.00	41.20	14.24	3.56
Do.....	19,316	68.00	16.10		
Do.....	69,255	312.00	57.71		
Do.....	26,295	118.00	21.91		
January 12.....	95,558	430.00	79.63		
Do.....	30,378	137.00	25.32		
Do.....	47,392	213.00	39.49		
Do.....	22,374	78.00	18.65		
January 14.....	42,304	190.00	35.25		
Do.....	69,390	312.00	57.83		
Do.....	40,357	182.00	33.63		
Do.....	34,173	164.00	28.48		
Do.....	51,911	224.00	43.26		
Do.....	24,633	86.00	20.53		
January 15.....	21,525	75.00	17.94		
January 16.....	103,461	466.00	86.22		
Do.....	36,215	163.00	30.18		
Do.....	35,020	158.00	29.18		
Do.....	89,920	435.00	74.93		
January 17.....	73,370	605.00	61.14	21.13	5.28
Do.....	25,475	89.00	21.23		
January 18.....	69,847	314.00	58.21		
Do.....	33,962	153.00	28.30		
Do.....	35,450	160.00	29.54		
Do.....	35,309	159.00	29.42		
January 19.....	70,180	579.00	58.48	20.21	5.05
Do.....	21,604	76.00	18.00		
Do.....	45,078	225.00	37.57		
January 21.....	26,614	93.00	22.18		
Do.....	24,148	85.00	20.12		
Do.....	74,167	612.00	61.81	21.36	5.34
Do.....	91,638	412.00	76.37		
Do.....	118,123	532.00	98.44		
Do.....	35,224	159.00	29.35		
Do.....	35,884	161.00	29.90		
Do.....	57,782	260.00	48.15		

Mechanically ground and chemically unbleached pulp of wood imported into the district of Memphrenagog (Newport, Vt., port of entry), from January 1, 1907, to June 1, 1908, from the Dominion of Canada, under paragraph 393—Continued.

MECHANICALLY GROUND PULP OF WOOD—Continued.

Date.	Quantity.	Value.	Duty.	Countervailing duty (paragraph 393).	
				Quantity.	Duty.
1907.	Pounds.			Cords.	
January 22.....	24,536	\$86.00	\$90.45		
January 23.....	58,000	551.00	48.33	16.70	\$4.18
January 24.....	95,302	429.00	79.42		
Do.....	51,543	232.00	42.95		
Do.....	38,403	173.00	32.00		
Do.....	62,380	281.00	51.98		
Do.....	76,236	343.00	63.53		
January 25.....	22,492	79.00	18.74		
Do.....	22,990	103.00	19.16		
January 26.....	26,083	117.00	21.74		
Do.....	19,365	68.00	16.14		
Do.....	54,422	245.00	45.35		
Do.....	73,726	332.00	61.44		
Do.....	105,421	474.00	87.85		
Do.....	44,958	202.00	37.47		
January 28.....	66,002	297.00	55.00		
Do.....	48,934	220.00	40.78		
Do.....	37,142	167.00	30.95		
Do.....	35,373	159.00	29.48		
Do.....	34,633	156.00	28.96		
January 29.....	24,770	87.00	20.64		
Do.....	33,041	149.00	27.53		
Do.....	73,012	329.00	60.84		
February 1.....	52,474	236.00	43.73		
Do.....	40,528	182.00	33.77		
Do.....	43,533	196.00	36.28		
Do.....	52,513	236.00	43.76		
Do.....	23,740	83.00	19.78		
Do.....	107,300	1,019.00	89.42	30.90	7.73
February 2.....	40,672	417.00	33.89	11.71	2.93
Do.....	35,283	159.00	29.40		
Do.....	35,638	160.00	29.70		
Do.....	45,586	205.00	37.99		
Do.....	70,009	342.00	63.34		
Do.....	51,663	232.00	43.05		
Do.....	79,907	659.00	66.59	23.01	5.75
Do.....	102,072	842.00	85.06	29.40	7.35
February 4.....	130,789	1,079.00	108.99	37.67	9.42
Do.....	36,552	164.00	30.46		
Do.....	71,973	324.00	59.98		
Do.....	66,928	301.00	55.77		
Do.....	65,211	293.00	54.34		
Do.....	20,455	72.00	17.05		
Do.....	17,311	61.00	14.43		
February 5.....	37,002	167.00	30.84		
Do.....	38,339	173.00	31.95		
Do.....	65,776	296.00	54.81		
Do.....	50,567	228.00	42.14		
Do.....	51,304	231.00	42.75		
Do.....	42,358	191.00	35.30		
February 6.....	48,495	218.00	40.41		
Do.....	42,662	192.00	35.55		
Do.....	73,553	331.00	61.29		
Do.....	80,333	361.00	66.94		
Do.....	46,938	211.00	39.12		
Do.....	65,943	297.00	54.95		
Do.....	23,328	82.00	19.44		
Do.....	40,672	427.00	33.89	11.71	2.93
February 7.....	47,180	212.00	39.32		
Do.....	54,600	246.00	45.50		
Do.....	55,872	251.00	46.56		
Do.....	44,813	202.00	37.34		
February 8.....	45,661	205.00	38.05		
Do.....	55,451	250.00	46.21		
Do.....	57,334	258.00	47.78		
Do.....	23,054	81.00	19.21		
February 9.....	47,703	215.00	39.75		
Do.....	129,118	1,356.00	107.60	37.19	9.30
February 11.....	22,588	79.00	18.82		
Do.....	113,218	793.00	94.35	16.98	4.25
Do.....	45,574	205.00	37.98		
Do.....	62,247	280.00	51.87		
Do.....	37,336	168.00	31.11		
Do.....	41,006	185.00	34.17		

Mechanically ground and chemically unbleached pulp of wood imported into the district of Memphremagog (Newport, Vt., port of entry), from January 1, 1907, to June 1, 1908, from the Dominion of Canada, under paragraph 393—Continued.

MECHANICALLY GROUND PULP OF WOOD—Continued.

Date.	Quantity.	Value.	Duty.	Countervailing duty (paragraph 393).	
				Quantity.	Duty.
1907.	<i>Pounds.</i>			<i>Cords.</i>	
February 11.....	48,805	\$220.00	\$40.67		
Do.....	37,112	167.00	30.93		
February 12.....	50,319	352.00	41.93	7.55	\$1.89
Do.....	171,496	1,200.00	142.91	25.72	6.43
Do.....	46,372	209.00	38.64		
Do.....	61,219	275.00	51.02		
February 13.....	35,730	161.00	29.78		
Do.....	36,476	164.00	30.40		
Do.....	57,288	258.00	47.74		
Do.....	105,992	477.00	88.33		
Do.....	38,945	175.00	32.45		
February 14.....	50,405	353.00	42.00	7.56	1.89
Do.....	180,849	1,266.00	150.71	27.13	6.78
Do.....	37,417	262.00	31.18	5.61	1.40
Do.....	196,185	1,619.00	163.49	56.50	14.13
Do.....	53,037	239.00	44.20		
Do.....	78,393	453.00	65.33		
Do.....	48,070	216.00	40.06		
Do.....	37,881	170.00	31.57		
Do.....	20,278	71.00	16.90		
February 15.....	42,357	191.00	35.30		
February 16.....	20,300	71.00	16.92		
Do.....	130,960	917.00	109.13	19.64	4.91
Do.....	101,282	836.00	84.40	29.17	7.29
Do.....	189,006	1,559.00	157.51	54.43	13.61
February 18.....	139,562	1,151.00	116.30	40.19	10.05
February 19.....	61,456	277.00	51.21		
Do.....	124,181	559.00	103.48		
Do.....	47,971	216.00	39.98		
Do.....	118,523	533.00	98.77		
Do.....	56,362	254.00	46.97		
February 20.....	38,007	171.00	31.67		
Do.....	55,468	250.00	46.22		
Do.....	87,519	394.00	72.93		
Do.....	55,619	250.00	46.35		
Do.....	113,412	794.00	94.51	17.01	4.25
February 21.....	82,980	373.00	69.15		
Do.....	74,397	335.00	62.00		
February 22.....	82,346	371.00	68.62		
Do.....	25,160	176.00	20.97	3.77	.94
Do.....	75,479	523.00	62.90	11.32	2.83
Do.....	62,496	437.00	52.06	9.37	2.34
February 23.....	23,467	82.00	19.56		
Do.....	20,910	73.00	17.43		
Do.....	23,923	84.00	19.94		
February 25.....	112,947	508.00	94.12		
Do.....	64,504	290.00	53.75		
Do.....	125,368	578.00	104.47	18.81	4.70
February 27.....	144,347	1,191.00	120.29	41.57	10.39
Do.....	122,016	1,007.00	101.68	35.14	8.79
Do.....	105,269	868.00	87.72	30.32	7.58
Do.....	25,240	88.00	21.03		
February 28.....	19,712	69.00	16.43		
March 1.....	100,639	704.00	83.87	15.10	3.78
Do.....	63,002	520.00	52.50	18.14	4.54
Do.....	68,354	308.00	56.96		
Do.....	64,335	290.00	53.61		
Do.....	29,311	132.00	24.43		
Do.....	19,350	68.00	16.13		
March 2.....	24,722	260.00	20.60	7.12	1.78
Do.....	38,765	368.00	32.30	11.16	2.79
Do.....	24,722	204.00	20.60	7.12	1.78
Do.....	71,004	320.00	59.17		
March 4.....	39,218	166.00	32.68		
Do.....	56,285	253.00	46.90		
Do.....	71,371	321.00	59.48		
Do.....	92,546	416.00	77.12		
Do.....	164,284	1,355.00	136.90	47.31	11.83
March 5.....	38,280	402.00	31.90	11.02	2.76
Do.....	24,722	235.00	20.60	7.12	1.78
Do.....	40,048	180.00	33.37		
March 6.....	92,345	416.00	76.95		
Do.....	83,549	376.00	69.62		
Do.....	19,800	69.00	16.50		

Mechanically ground and chemically unbleached pulp of wood imported into the district of Memphremagog (Newport, Vt., port of entry), from January 1, 1907, to June 1, 1908, from the Dominion of Canada, under paragraph 593—Continued.

MECHANICALLY GROUND PULP OF WOOD—Continued.

Date.	Quantity.	Value.	Duty.	Countervailing duty (paragraph 593).	
				Quantity.	Duty.
1907.	<i>Pounds.</i>			<i>Cords.</i>	
March 6.....	25,070	\$88.00	\$20.80		
March 7.....	62,204	638.00	51.84	17.91	\$4.48
Do.....	39,875	320.00	33.23	11.48	2.87
Do.....	64,268	289.00	53.56		
Do.....	54,447	245.00	45.37		
Do.....	80,578	363.00	67.15		
Do.....	57,041	257.00	47.53		
March 8.....	22,828	80.00	19.02		
Do.....	76,560	632.00	63.80	22.05	5.51
Do.....	63,002	520.00	52.50	18.14	4.54
March 9.....	75,009	838.00	62.51		
Do.....	91,680	413.00	76.40		
Do.....	40,672	417.00	33.89	11.71	2.93
March 11.....	113,217	793.00	94.35	16.98	4.25
Do.....	62,899	440.00	52.42	9.44	2.36
Do.....	150,440	1,053.00	125.37	22.57	5.64
Do.....	49,444	408.00	41.20	14.24	3.56
Do.....	48,947	220.00	40.79		
Do.....	56,958	256.00	47.47		
Do.....	18,480	65.00	15.40		
March 12.....	128,800	741.00	107.33	64.40	16.10
Do.....	103,051	464.00	85.88		
Do.....	118,406	533.00	98.67		
March 13.....	64,078	288.00	53.40		
Do.....	39,406	177.00	32.84		
Do.....	23,193	81.00	19.33		
March 14.....	43,356	195.00	36.13		
Do.....	40,672	427.00	33.80	11.71	2.93
March 15.....	43,819	197.00	36.52		
Do.....	64,029	288.00	53.36		
Do.....	22,281	78.00	18.57		
Do.....	75,124	770.00	62.60	21.64	5.41
March 16.....	49,529	223.00	41.27		
March 18.....	50,148	226.00	41.79		
Do.....	72,110	324.00	60.09		
Do.....	36,638	165.00	30.53		
Do.....	55,493	250.00	46.24		
Do.....	92,791	418.00	77.33		
Do.....	54,858	247.00	45.72		
Do.....	137,669	964.00	114.72	20.65	5.16
Do.....	114,186	799.00	95.16	17.12	4.28
Do.....	22,762	80.00	18.97		
March 19.....	51,975	533.00	43.31	14.97	3.74
Do.....	16,691	58.00	13.91		
Do.....	63,067	284.00	52.56		
Do.....	39,784	179.00	33.15		
Do.....	65,295	294.00	54.41		
Do.....	37,039	167.00	30.87		
March 20.....	21,181	95.00	17.65		
Do.....	95,244	429.00	79.37		
Do.....	136,372	1,125.00	113.64	39.28	9.82
March 21.....	23,062	83.00	19.74		
March 22.....	38,844	175.00	32.37		
Do.....	55,919	252.00	46.60		
Do.....	88,886	400.00	74.07		
Do.....	56,044	252.00	46.70		
Do.....	49,444	519.00	41.20	14.24	3.56
Do.....	49,444	519.00	41.20	14.24	3.56
March 23.....	63,002	520.00	52.50	18.14	4.54
Do.....	66,192	546.00	55.16	19.06	4.77
Do.....	55,372	249.00	46.14		
Do.....	26,246	92.00	21.87		
March 26.....	37,998	171.00	31.67		
Do.....	54,129	244.00	45.12		
Do.....	53,468	241.00	44.56		
Do.....	20,201	71.00	16.83		
March 27.....	56,319	253.00	46.93		
March 29.....	65,395	539.00	54.50	18.84	4.71
Do.....	25,683	90.00	21.40		
April 1.....	41,724	168.00	34.77		
Do.....	87,875	365.00	73.23		
Do.....	40,870	184.00	34.08		
Do.....	51,669	233.00	43.06		
Do.....	37,514	169.00	31.26		

Mechanically ground and chemically unbleached pulp of wood imported into the district of Memphremagog (Newport, Vt., port of entry), from January 1, 1907, to June 1, 1908, from the Dominion of Canada, under paragraph 393—Continued.

MECHANICALLY GROUND PULP OF WOOD—Continued.

Date.	Quantity.	Value.	Duty.	Countervailing duty (paragraph 393).	
				Quantity.	Duty.
1907.	<i>Pounds.</i>			<i>Cords.</i>	
April 1.....	38,280	\$316.00	\$31.90	11.02	\$2.76
Do.....	23,641	83.00	19.70		
Do.....	26,627	120.00	22.19		
April 2.....	43,951	198.00	36.63		
April 3.....	36,824	166.00	30.69		
Do.....	45,845	206.00	38.20		
Do.....	141,965	1,171.00	118.30	40.88	10.22
Do.....	75,443	622.00	62.87	21.73	5.43
April 4.....	45,122	203.00	37.60		
Do.....	37,393	168.00	31.16		
Do.....	53,057	239.00	44.21		
Do.....	55,640	529.00	46.37	16.02	4.01
Do.....	18,744	66.00	15.62		
April 5.....	21,018	74.00	17.52		
April 6.....	36,685	376.00	30.57	10.57	2.64
Do.....	75,525	340.00	62.94		
April 8.....	73,398	330.00	61.16		
Do.....	36,892	166.00	30.74		
Do.....	22,932	80.00	19.11		
Do.....	21,486	75.00	17.91		
Do.....	37,150	167.00	30.96		
April 9.....	24,193	85.00	20.16		
Do.....	37,765	170.00	31.47		
April 10.....	35,499	160.00	29.58		
Do.....	60,610	500.00	60.51	17.46	4.37
Do.....	73,370	770.00	61.14	21.13	5.28
Do.....	23,664	83.00	19.72		
April 11.....	23,707	83.00	19.76		
Do.....	19,563	68.00	16.30		
Do.....	54,352	245.00	45.29		
Do.....	64,310	289.00	53.59		
Do.....	53,342	240.00	44.45		
April 13.....	78,392	353.00	65.33		
Do.....	37,908	171.00	31.64		
Do.....	23,395	82.00	19.50		
April 15.....	51,881	233.00	43.23		
Do.....	34,184	364.00	28.90	9.99	2.50
April 16.....	84,535	697.00	70.45	24.35	6.09
Do.....	73,370	605.00	61.14	21.13	5.28
Do.....	37,339	168.00	31.12		
Do.....	52,469	236.00	43.72		
Do.....	25,656	90.00	21.38		
Do.....	20,816	73.00	17.35		
Do.....	25,757	90.00	21.46		
Do.....	24,562	86.00	20.46		
Do.....	31,900	327.00	26.58	9.19	2.30
April 17.....	64,190	289.00	53.49		
Do.....	65,184	293.00	54.32		
April 18.....	43,713	197.00	36.43		
Do.....	44,200	199.00	36.83		
Do.....	25,291	89.00	21.08		
Do.....	23,428	82.00	19.52		
Do.....	24,153	85.00	20.13		
April 19.....	80,056	360.00	66.71		
Do.....	90,810	409.00	75.68		
Do.....	47,850	395.00	39.88	13.78	3.45
April 20.....	37,335	168.00	31.11		
Do.....	37,198	167.00	31.00		
Do.....	38,254	172.00	31.88		
Do.....	26,294	92.00	21.91		
Do.....	27,431	96.00	22.86		
Do.....	20,803	73.00	17.34		
Do.....	18,535	65.00	15.45		
Do.....	21,657	76.00	18.05		
April 23.....	48,230	506.00	40.19	13.89	3.47
Do.....	23,706	83.00	19.76		
Do.....	22,267	78.00	18.56		
Do.....	43,166	194.00	35.97		
April 24.....	49,500	495.00	41.25	14.26	3.57
April 25.....	65,395	687.00	54.50	18.83	4.71
Do.....	64,069	288.00	53.39		
Do.....	74,328	334.00	61.94		
April 26.....	23,390	82.00	19.49		
Do.....	25,850	90.00	21.54		

Mechanically ground and chemically unbleached pulp of wood imported into the district of Memphremagog (Newport, Vt., port of entry), from January 1, 1907, to June 1, 1908, from the Dominion of Canada, under paragraph 393—Continued.

MECHANICALLY GROUND PULP OF WOOD—Continued.

Date.	Quantity.	Value.	Duty.	Countervailing duty (paragraph 393).	
				Quantity.	Duty.
	<i>Pounds.</i>			<i>Cords.</i>	
April 26. 1907.	22,848	\$80.00	\$19.04		
Do.	22,848	80.00	19.04		
Do.	36,685	349.00	80.57	10.57	\$2.64
Do.	95,700	790.00	79.75	27.56	6.89
April 27.	19,062	67.00	15.88		
April 29.	63,843	287.00	53.20		
April 30.	82,653	372.00	68.88		
Do.	91,036	410.00	75.86		
Do.	25,164	88.00	20.97		
Do.	22,464	79.00	18.72		
Do.	23,064	81.00	19.22		
Do.	27,057	95.00	22.55		
May 1.	85,702	386.00	71.42		
Do.	58,217	480.00	48.51	16.77	4.19
Do.	31,900	327.00	26.58	9.19	2.30
Do.	36,685	394.00	30.57	10.57	2.69
Do.	60,610	621.00	50.51	17.46	4.37
May 2.	25,925	91.00	21.60		
Do.	25,344	89.00	21.12		
Do.	44,204	199.00	36.84		
May 3.	57,563	259.00	47.97		
Do.	40,006	180.00	33.34		
Do.	38,031	171.00	31.69		
Do.	26,329	92.00	21.94		
Do.	26,625	93.00	22.19		
May 4.	60,610	500.00	50.51	17.46	4.37
Do.	60,610	636.00	50.51	17.46	4.37
Do.	24,365	231.00	20.30	7.02	1.76
Do.	23,476	82.00	19.56		
May 6.	19,299	68.00	16.08		
Do.	24,745	87.00	20.62		
Do.	27,508	124.00	22.92		
Do.	45,129	203.00	37.61		
May 7.	41,910	189.00	34.93		
Do.	45,437	204.00	37.86		
May 8.	46,717	210.00	38.93		
Do.	110,065	908.00	91.71	31.70	7.93
Do.	65,395	540.00	54.50	18.83	4.71
Do.	73,916	333.00	61.60		
Do.	25,540	89.00	21.28		
Do.	26,314	92.00	21.93		
May 9.	22,704	79.00	18.92		
Do.	36,785	166.00	30.65		
Do.	72,238	325.00	60.20		
May 10.	145,145	1,197.00	120.95	41.80	10.45
Do.	40,091	180.00	33.41		
Do.	23,136	81.00	19.28		
Do.	27,128	95.00	22.61		
May 11.	26,103	91.00	21.75		
Do.	67,161	302.00	55.97		
Do.	97,295	803.00	81.08	28.02	7.01
May 13.	40,562	183.00	33.80		
Do.	76,144	343.00	63.45		
May 14.	60,610	500.00	50.51	17.46	4.37
Do.	97,295	803.00	81.08	28.02	7.01
Do.	79,138	356.00	65.95		
Do.	45,907	207.00	38.26		
Do.	50,350	227.00	41.96		
Do.	80,040	780.00	66.70	23.05	5.76
Do.	23,385	82.00	19.49		
Do.	23,833	83.00	19.86		
Do.	23,803	83.00	19.84		
Do.	20,520	72.00	17.10		
May 15.	38,458	173.00	32.05		
May 16.	96,955	445.00	82.46		
Do.	24,911	87.00	20.76		
Do.	65,831	296.00	54.86		
Do.	52,658	237.00	43.88		
Do.	73,370	734.00	61.14	21.13	5.28
May 18.	25,662	90.00	21.39		
Do.	25,188	88.00	20.99		
Do.	23,956	84.00	19.96		
Do.	35,848	161.00	29.87		
Do.	70,734	318.00	58.95		
Do.	35,940	162.00	29.95		

Mechanically ground and chemically unbleached pulp of wood imported into the district of Memphremagog (Newport, Vt., port of entry), from January 1, 1907, to June 1, 1908, from the Dominion of Canada, under paragraph 393—Continued.

MECHANICALLY GROUND PULP OF WOOD—Continued.

Date.	Quantity.	Value.	Duty.	Countervailing duty (paragraph 393).	
				Quantity.	Duty.
1907.	<i>Pounds.</i>			<i>Cords.</i>	
May 20.	18,282	\$64.00	\$15.24		
Do.	67,784	305.00	56.47		
Do.	115,637	964.00	96.36	33.80	\$5.33
May 21.	23,352	82.00	19.46		
Do.	23,202	81.00	19.34		
Do.	28,380	82.00	19.48		
Do.	23,440	79.00	18.70		
Do.	68,368	676.00	56.97	19.95	5.00
Do.	67,787	580.00	56.49	19.52	4.88
May 22.	36,967	166.00	30.81		
Do.	71,087	320.00	56.24		
May 23.	73,007	329.00	60.24		
Do.	26,469	72.00	17.06		
Do.	28,030	81.00	19.19		
Do.	42,884	434.00	38.15	12.50	3.13
May 24.	26,568	89.00	21.21		
Do.	21,085	74.00	17.55		
May 27.	22,540	76.00	18.78		
Do.	26,588	72.00	17.16		
Do.	81,855	368.00	68.21		
Do.	57,943	261.00	48.29		
Do.	128,765	1,145.00	115.64	39.95	9.99
Do.	111,649	921.00	93.04	32.16	8.04
Do.	66,990	553.00	55.83	19.29	4.82
May 28.	25,707	161.00	29.76		
May 29.	104,427	470.00	57.02		
Do.	26,394	71.00	17.00		
Do.	22,473	79.00	18.73		
Do.	26,416	71.00	17.01		
May 30.	75,517	326.00	60.43		
Do.	61,838	278.00	51.53		
Do.	59,015	487.00	49.18	15.99	4.25
Do.	91,712	767.00	78.43	26.41	6.60
June 1.	62,988	283.00	52.49		
Do.	73,307	325.00	60.26		
Do.	22,330	184.00	18.61	5.43	1.61
Do.	108,965	882.00	88.05	30.78	7.70
June 3.	24,643	156.00	28.37		
June 4.	68,948	310.00	57.46		
Do.	71,776	718.00	58.51	20.67	5.17
June 5.	28,280	81.00	19.40		
Do.	68,947	266.00	41.62		
June 6.	66,328	298.00	55.27		
Do.	44,724	261.00	37.27		
June 8.	107,784	485.00	59.78		
Do.	22,176	78.00	18.48		
Do.	28,280	81.00	19.40		
June 10.	76,560	632.00	63.80	22.05	5.51
Do.	78,768	355.00	55.64		
Do.	68,077	306.00	55.73		
June 11.	24,563	203.00	26.47	7.07	1.77
Do.	23,625	197.00	19.94	6.89	1.72
Do.	28,464	87.00	21.22		
Do.	43,065	431.00	38.86	12.40	3.10
June 12.	21,792	76.00	18.16		
Do.	47,850	490.00	39.88	13.78	3.45
Do.	47,850	490.00	39.88	13.78	3.45
Do.	47,850	479.00	39.88	13.78	3.45
Do.	106,554	479.00	83.80		
Do.	81,551	367.00	37.96		
June 14.	62,782	283.00	52.32		
June 15.	74,425	335.00	62.02		
Do.	45,240	441.00	37.70	13.03	3.26
June 17.	28,483	80.00	21.24		
Do.	77,337	348.00	64.45		
Do.	45,166	203.00	37.64		
June 18.	22,639	79.00	18.87		
Do.	24,032	84.00	20.03		
June 19.	86,130	863.00	71.78	24.51	6.20
Do.	54,733	245.00	45.61		
Do.	54,504	245.00	45.42		
June 20.	47,850	479.00	39.88	13.78	3.45
June 21.	28,530	89.00	21.28		
Do.	74,330	334.00	61.94		
Do.	66,870	301.00	58.78		

Mechanically ground and chemically unbleached pulp of wood imported into the district of Memphremagog (Newport, Vt., port of entry), from January 1, 1907, to June 1, 1908, from the Dominion of Canada, under paragraph 593—Continued.

MECHANICALLY GROUND PULP OF WOOD—Continued.

Date.	Quantity.	Value.	Duty.	Countervailing duty (paragraph 593).	
				Quantity.	Duty.
1907.	<i>Pounds.</i>			<i>Cords.</i>	
June 22	61,537	\$277.00	\$51.28		
June 24	74,961	837.00	62.47		
Do	114,443	515.00	95.37		
June 25	36,825	156.00	30.09		
Do	54,298	244.00	45.25		
June 26	102,816	463.00	85.68		
June 27	64,491	290.00	53.74		
Do	24,264	85.00	20.22		
Do	26,573	93.00	22.14		
July 1	59,015	605.00	49.18	17.00	\$4.25
Do	43,078	194.00	35.90		
Do	64,483	280.00	53.74		
Do	68,726	309.00	57.27		
Do	102,312	460.00	85.26		
Do	57,656	259.00	48.05		
Do	60,338	272.00	50.28		
July 2	45,240	441.00	37.70	13.03	3.25
Do	25,137	88.00	20.95		
Do	23,787	83.00	19.82		
July 3	39,638	178.00	33.03		
July 6	54,504	245.00	45.42		
Do	145,789	656.00	121.49		
July 8	25,155	88.00	20.96		
Do	19,580	69.00	16.32		
July 9	36,685	367.00	30.57	10.57	2.64
July 10	27,936	98.00	23.28		
Do	27,433	96.00	22.86		
July 11	67,203	302.00	56.00		
Do	50,293	226.00	41.91		
Do	65,342	294.00	54.45		
July 12	71,969	324.00	59.97		
Do	24,725	87.00	20.00		
July 13	42,762	192.00	35.64		
July 15	67,109	302.00	55.92		
Do	26,432	93.00	22.03		
Do	28,200	99.00	23.50		
July 16	60,610	606.00	50.51	17.46	4.37
July 18	55,402	249.00	46.17		
Do	39,230	402.00	74.41		
July 19	62,191	280.00	51.83		
Do	69,034	311.00	57.53		
July 20	67,844	305.00	56.54		
Do	25,728	90.00	21.44		
Do	25,967	91.00	21.64		
Do	26,009	91.00	21.67		
Do	20,941	73.00	17.45		
July 22	48,843	220.00	40.70		
Do	56,387	254.00	46.99		
July 24	84,046	378.00	70.04		
Do	88,709	399.00	73.92		
July 25	75,624	340.00	63.02		
Do	76,243	343.00	63.54		
Do	97,057	437.00	80.88		
Do	28,571	100.00	23.81		
Do	23,370	82.00	19.48		
July 26	49,177	221.00	40.98		
Do	53,792	242.00	44.83		
July 27	75,587	340.00	62.99		
Do	23,502	82.00	19.56		
July 29	29,366	103.00	24.47		
July 30	72,619	327.00	60.52		
Do	37,555	169.00	31.30		
Do	36,853	166.00	30.71		
August 1	55,251	249.00	46.04		
Do	47,958	216.00	39.97		
Do	42,427	191.00	35.36		
Do	26,710	93.00	22.26		
Do	16,959	59.00	14.13		
August 2	62,359	281.00	51.97		
August 3	38,408	173.00	32.01		
Do	50,299	226.00	41.92		
Do	26,508	93.00	22.09		
August 5	62,154	280.00	51.80		
Do	70,117	316.00	58.43		
Do	64,530	290.00	53.78		

Mechanically ground and chemically unbleached pulp of wood imported into the district of Memphremagog (Newport, Vt., port of entry), from January 1, 1907, to June 1, 1908, from the Dominion of Canada, under paragraph 393—Continued.

MECHANICALLY GROUND PULP OF WOOD—Continued.

Date.	Quantity.	Value.	Duty.	Countervailing duty (paragraph 393).	
				Quantity.	Duty.
1907.	<i>Pounds.</i>			<i>Cords.</i>	
August 6.....	60,592	\$313.00	\$87.99		
Do.....	47,850	479.00	39.88	13.78	\$3.45
August 7.....	38,740	174.00	32.28		
August 9.....	51,741	223.00	43.12		
Do.....	48,172	217.00	40.14		
August 10.....	60,788	274.00	50.66		
Do.....	73,395	330.00	61.16		
Do.....	44,731	201.00	37.28		
Do.....	37,621	169.00	31.35		
Do.....	26,761	94.00	22.30		
Do.....	24,472	88.00	20.39		
August 12.....	24,247	85.00	20.21		
Do.....	45,781	208.00	38.15		
Do.....	46,416	209.00	38.68		
Do.....	61,542	277.00	51.29		
August 13.....	78,335	353.00	65.28		
Do.....	44,203	199.00	36.84		
Do.....	19,580	69.00	16.32		
August 14.....	43,263	195.00	36.05		
August 15.....	57,853	260.00	48.21		
Do.....	81,614	367.00	68.01		
Do.....	52,930	238.00	44.11		
Do.....	37,005	167.00	30.84		
August 17.....	43,578	196.00	36.31		
Do.....	64,885	292.00	54.07		
August 19.....	64,630	291.00	53.86		
Do.....	47,238	213.00	39.37		
Do.....	60,584	313.00	57.99		
Do.....	52,858	238.00	44.05		
August 20.....	54,986	247.00	45.82		
Do.....	47,850	480.00	39.88	13.78	3.45
Do.....	23,572	83.00	19.64		
Do.....	27,067	95.00	22.55		
August 21.....	26,847	94.00	22.37		
Do.....	59,584	268.00	49.65		
Do.....	78,007	351.00	65.01		
August 22.....	43,559	196.00	36.30		
Do.....	79,609	358.00	66.34		
Do.....	35,887	359.00	29.91	10.34	2.59
August 23.....	60,126	271.00	50.11		
Do.....	19,587	69.00	16.32		
Do.....	24,508	86.00	20.42		
Do.....	19,185	67.00	15.99		
Do.....	22,521	101.00	18.77		
August 24.....	43,530	196.00	36.28		
Do.....	53,656	241.00	44.71		
August 26.....	92,879	418.00	77.40		
Do.....	26,966	121.00	22.47		
August 27.....	22,355	78.00	18.63		
Do.....	24,892	87.00	20.74		
Do.....	27,369	96.00	22.81		
Do.....	55,698	251.00	46.42		
Do.....	67,878	305.00	56.57		
Do.....	77,100	347.00	64.25		
August 28.....	46,914	211.00	39.10		
Do.....	36,685	367.00	30.57	10.57	2.64
Do.....	47,850	479.00	39.88	13.78	3.45
August 29.....	77,041	347.00	64.20		
Do.....	25,400	89.00	21.24		
Do.....	23,764	83.00	19.80		
Do.....	23,554	82.00	19.63		
Do.....	23,385	82.00	19.49		
Do.....	44,112	199.00	36.76		
Do.....	36,659	165.00	30.55		
Do.....	36,599	165.00	30.50		
August 30.....	55,922	252.00	46.60		
Do.....	37,011	167.00	30.84		
Do.....	39,537	178.00	32.95		
September 2.....	36,905	166.00	30.75		
Do.....	38,421	173.00	32.02		
Do.....	50,109	225.00	41.76		
Do.....	52,599	237.00	43.83		
Do.....	53,747	242.00	44.79		
Do.....	39,075	176.00	32.56		
September 3.....	21,559	75.00	17.97		

Mechanically ground and chemically unbleached pulp of wood imported into the district of Memphremagog (Newport, Vt., port of entry), from January 1, 1907, to June 1, 1908, from the Dominion of Canada, under paragraph 593—Continued.

MECHANICALLY GROUND PULP OF WOOD—Continued.

Date.	Quantity.	Value.	Duty.	Countervailing duty (paragraph 593).	
				Quantity.	Duty.
1907.	<i>Pounds.</i>			<i>Cords.</i>	
September 3.....	29,198	\$102.00	\$24.38		
Do.....	23,376	82.00	19.48		
Do.....	70,688	318.00	58.91		
September 4.....	48,693	219.00	40.68		
Do.....	54,230	542.00	45.19	15.62	\$3.91
September 6.....	21,364	75.00	17.80		
Do.....	25,394	89.00	21.15		
Do.....	35,644	155.00	30.54		
September 7.....	24,042	84.00	20.04		
Do.....	22,531	79.00	18.78		
Do.....	22,279	78.00	18.57		
Do.....	21,104	74.00	17.59		
September 9.....	37,336	168.00	31.11		
Do.....	64,234	289.00	53.53		
Do.....	51,631	232.00	43.03		
Do.....	55,234	249.00	46.03		
Do.....	51,829	233.00	43.19		
September 10.....	70,673	318.00	58.89		
September 11.....	52,965	238.00	44.14		
September 13.....	47,850	479.00	39.88	13.78	3.48
September 14.....	35,052	158.00	29.21		
Do.....	35,520	160.00	29.60		
September 16.....	36,174	163.00	30.15		
Do.....	20,065	70.00	16.72		
Do.....	23,430	82.00	19.53		
Do.....	17,944	63.00	14.95		
Do.....	23,899	84.00	19.91		
Do.....	26,940	94.00	22.45		
Do.....	21,564	75.00	17.97		
Do.....	43,065	431.00	35.89	12.40	3.10
September 17.....	77,003	347.00	64.17		
Do.....	41,961	189.00	34.97		
Do.....	84,662	381.00	70.55		
September 19.....	36,685	376.00	30.57	10.57	2.64
September 20.....	19,830	69.00	16.53		
Do.....	20,458	72.00	17.05		
Do.....	21,504	75.00	17.92		
Do.....	20,296	71.00	16.91		
Do.....	20,330	71.00	16.94		
Do.....	19,472	68.00	16.28		
Do.....	19,380	68.00	16.13		
Do.....	18,852	66.00	15.71		
Do.....	19,804	69.00	16.50		
Do.....	19,568	68.00	16.31		
Do.....	19,540	68.00	16.28		
Do.....	52,035	269.00	68.26		
Do.....	37,356	168.00	31.13		
Do.....	77,765	350.00	64.80		
September 21.....	74,707	336.00	62.26		
Do.....	53,987	243.00	44.99		
Do.....	22,441	79.00	18.70		
September 23.....	40,232	181.00	33.53		
Do.....	47,389	213.00	39.49		
Do.....	37,408	168.00	31.17		
Do.....	41,382	186.00	34.49		
September 24.....	45,487	205.00	37.91		
Do.....	64,692	291.00	53.91		
September 25.....	42,639	192.00	36.53		
Do.....	78,044	351.00	65.04		
Do.....	23,697	83.00	19.75		
Do.....	26,680	93.00	22.23		
Do.....	23,452	82.00	19.55		
Do.....	22,302	78.00	18.59		
Do.....	20,154	71.00	16.80		
Do.....	25,492	89.00	21.24		
Do.....	22,347	78.00	18.62		
Do.....	20,705	72.00	17.25		
Do.....	24,836	87.00	20.70		
September 26.....	74,696	336.00	62.25		
Do.....	49,932	225.00	41.61		
Do.....	43,128	194.00	35.94		
Do.....	63,153	284.00	52.63		
September 27.....	71,238	321.00	60.26		

Mechanically ground and chemically unbleached pulp of wood imported into the district of Memphremagog (Newport, Vt., port of entry), from January 1, 1907, to June 1, 1908, from the Dominion of Canada, under paragraph 393—Continued.

MECHANICALLY GROUND PULP OF WOOD—Continued.

Date.	Quantity.	Value.	Duty.	Countervailing duty (paragraph 393).	
				Quantity.	Duty.
1907.	<i>Pounds.</i>			<i>Cords.</i>	
September 28.....	21,888	\$77.00	\$18.24		
Do.....	23,877	84.00	19.90		
Do.....	70,568	318.00	58.81		
Do.....	57,176	257.00	47.65		
October 1.....	55,241	249.00	46.03		
Do.....	57,951	261.00	48.29		
Do.....	66,862	301.00	55.72		
Do.....	50,704	228.00	42.25		
Do.....	58,217	582.00	48.51	15.77	\$4.19
October 2.....	39,399	177.00	32.83		
Do.....	20,025	70.00	16.69		
Do.....	25,587	90.00	21.32		
Do.....	19,606	69.00	16.41		
Do.....	20,954	73.00	17.46		
Do.....	24,316	85.00	20.26		
Do.....	69,640	313.00	58.03		
Do.....	50,098	225.00	41.75		
October 3.....	50,200	228.00	41.83		
October 4.....	77,283	348.00	64.40		
Do.....	98,871	445.00	82.39		
October 5.....	47,850	490.00	39.88	13.78	3.45
Do.....	23,925	245.00	19.94	6.89	1.73
Do.....	16,137	56.00	13.45		
Do.....	19,496	68.00	16.25		
Do.....	25,063	88.00	20.90		
October 7.....	58,048	261.00	48.37		
Do.....	53,647	241.00	44.71		
Do.....	50,560	228.00	42.13		
Do.....	70,772	318.00	58.98		
Do.....	73,818	332.00	61.52		
October 8.....	48,226	217.00	40.19		
Do.....	72,549	326.00	60.46		
October 9.....	26,617	165.00	30.51		
Do.....	62,401	281.00	52.00		
Do.....	58,217	582.00	48.51	15.77	4.19
Do.....	23,925	239.00	19.94	6.89	1.73
October 10.....	21,212	74.00	17.68		
Do.....	22,588	79.00	18.82		
Do.....	21,268	74.00	17.72		
Do.....	22,612	79.00	18.84		
Do.....	19,360	68.00	16.13		
October 11.....	47,980	216.00	39.97		
Do.....	60,399	312.00	57.83		
October 12.....	76,149	343.00	63.46		
October 14.....	22,627	79.00	18.86		
Do.....	21,994	77.00	18.33		
Do.....	77,767	350.00	64.81		
Do.....	51,546	232.00	42.96		
Do.....	44,516	200.00	37.10		
October 15.....	78,586	354.00	65.49		
Do.....	91,596	412.00	76.33		
Do.....	48,039	216.00	40.03		
Do.....	85,719	386.00	71.43		
October 16.....	81,928	369.00	68.27		
Do.....	84,698	381.00	70.68		
October 17.....	62,799	283.00	52.33		
October 19.....	97,247	438.00	81.04		
Do.....	99,068	446.00	82.57		
Do.....	24,393	85.00	20.33		
Do.....	26,267	88.00	21.06		
Do.....	22,780	80.00	18.96		
Do.....	22,852	80.00	19.04		
Do.....	23,510	82.00	19.59		
Do.....	18,606	65.00	15.50		
October 21.....	44,641	201.00	37.20		
Do.....	70,296	316.00	58.58		
Do.....	49,818	224.00	41.52		
Do.....	70,680	318.00	58.90		
October 23.....	59,238	267.00	49.37		
Do.....	87,701	395.00	73.06		
Do.....	18,030	63.00	15.03		
Do.....	21,620	76.00	18.02		
Do.....	84,566	381.00	70.47		

Mechanically ground and chemically unbleached pulp of wood imported into the district of Memphremagog (Newport, Vt., port of entry), from January 1, 1907, to June 1, 1908, from the Dominion of Canada, under paragraph 393—Continued.

MECHANICALLY GROUND PULP OF WOOD—Continued.

Date.	Quantity.	Value.	Duty.	Countervailing duty (paragraph 393).	
				Quantity.	Duty.
1907.	<i>Pounds.</i>			<i>Cords.</i>	
October 25.....	17,780	\$32.00	\$14.80		
Do.....	24,564	86.00	20.47		
Do.....	20,347	71.00	16.96		
Do.....	21,027	74.00	17.52		
Do.....	26,982	91.00	21.66		
Do.....	54,230	542.00	45.19	15.62	\$3.91
Do.....	53,074	239.00	44.23		
Do.....	92,359	416.00	76.97		
October 26.....	39,260	177.00	32.72		
Do.....	63,880	287.00	53.23		
Do.....	14,999	52.00	12.49		
Do.....	22,804	80.00	19.00		
Do.....	22,852	80.00	19.04		
Do.....	22,467	79.00	18.72		
Do.....	23,774	83.00	19.81		
November 1.....	72,734	327.00	60.61		
Do.....	77,221	347.00	64.35		
Do.....	83,400	375.00	69.50		
Do.....	68,584	703.00	57.15	19.75	4.94
Do.....	82,142	821.00	68.45	23.66	5.92
Do.....	68,019	306.00	56.68		
November 2.....	22,302	78.00	18.59		
Do.....	25,307	89.00	21.14		
Do.....	23,718	83.00	19.77		
Do.....	23,587	83.00	19.66		
November 5.....	45,462	206.00	37.89		
Do.....	17,153	77.00	14.29		
Do.....	17,497	79.00	14.58		
Do.....	25,863	116.00	21.55		
Do.....	17,210	77.00	14.34		
Do.....	128,887	580.00	107.41		
Do.....	52,148	235.00	43.46		
November 6.....	50,696	228.00	42.24		
Do.....	50,348	227.00	41.96		
Do.....	27,333	123.00	22.78		
November 7.....	36,703	165.00	30.59		
Do.....	80,307	783.00	66.92	23.13	5.78
Do.....	64,597	662.00	53.83	32.30	8.08
November 8.....	28,915	101.00	24.10		
Do.....	23,548	82.00	19.62		
Do.....	22,218	78.00	18.52		
Do.....	23,884	84.00	19.90		
Do.....	22,876	80.00	19.06		
Do.....	91,473	412.00	76.23		
Do.....	17,623	79.00	14.69		
Do.....	36,178	163.00	30.15		
Do.....	24,000	108.00	20.00		
November 9.....	65,967	297.00	54.97		
Do.....	35,192	158.00	29.33		
November 11.....	24,130	109.00	20.11		
Do.....	44,164	199.00	36.80		
Do.....	22,420	78.00	18.68		
Do.....	25,198	88.00	21.00		
November 12.....	82,142	821.00	68.45	23.66	5.92
Do.....	48,360	472.00	40.30	13.93	3.48
Do.....	56,000	252.00	46.67		
Do.....	40,000	180.00	33.33		
Do.....	91,446	412.00	76.21		
Do.....	25,092	113.00	20.91		
Do.....	25,804	116.00	21.50		
November 13.....	119,892	540.00	99.91		
Do.....	53,978	243.00	44.96		
Do.....	34,292	243.00	28.58	9.88	2.47
November 14.....	37,473	169.00	31.23		
Do.....	24,576	86.00	20.48		
Do.....	23,005	81.00	19.17		
Do.....	21,117	74.00	17.60		
Do.....	22,699	79.00	18.92		
Do.....	22,302	78.00	18.59		
Do.....	64,911	292.00	54.09		
Do.....	108,213	487.00	90.18		
Do.....	67,987	306.00	56.66		
November 15.....	87,571	394.00	72.98		

Mechanically ground and chemically unbleached pulp of wood imported into the district of Memphremagog (Newport, Vt., port of entry), from January 1, 1907, to June 1, 1908, from the Dominion of Canada, under paragraph 393—Continued.

MECHANICALLY GROUND PULP OF WOOD—Continued.

Date.	Quantity.	Value.	Duty.	Countervailing duty (paragraph 393).	
				Quantity.	Duty.
1907.	<i>Pounds.</i>			<i>Cords.</i>	
November 16.....	64,737	\$291.00	\$53.95		
Do.....	67,539	304.00	55.28		
Do.....	59,972	270.00	49.98		
November 18.....	58,851	265.00	49.04		
Do.....	62,556	282.00	52.13		
Do.....	84,578	381.00	70.48		
Do.....	70,201	316.00	58.50		
Do.....	22,129	77.00	15.44		
Do.....	26,085	91.00	21.74		
Do.....	22,358	78.00	15.63		
Do.....	23,539	82.00	19.62		
Do.....	23,625	83.00	19.69		
November 19.....	58,217	597.00	48.51	16.77	\$4.19
Do.....	85,940	387.00	71.62		
Do.....	111,552	502.00	92.96		
November 23.....	108,303	487.00	90.25		
November 26.....	60,610	621.00	50.51	17.46	4.37
Do.....	55,934	252.00	46.61		
Do.....	62,705	282.00	52.25		
Do.....	70,155	316.00	58.46		
Do.....	60,736	273.00	50.61		
Do.....	74,055	333.00	61.71		
Do.....	131,308	591.00	109.42		
Do.....	125,350	564.00	104.46		
Do.....	112,988	508.00	94.16		
Do.....	92,838	418.00	77.37		
Do.....	97,998	441.00	81.67		
Do.....	69,652	313.00	58.04		
Do.....	90,079	405.00	75.07		
Do.....	76,199	343.00	63.50		
Do.....	93,275	420.00	77.73		
Do.....	68,644	306.00	57.20		
November 27.....	51,850	233.00	43.21		
Do.....	22,506	76.00	18.76		
Do.....	24,211	85.00	20.18		
Do.....	20,089	70.00	16.74		
Do.....	23,280	81.00	19.40		
Do.....	21,979	77.00	18.32		
Do.....	23,760	83.00	19.80		
Do.....	77,073	347.00	64.23		
November 28.....	88,154	397.00	73.46		
Do.....	66,403	299.00	55.34		
Do.....	70,167	316.00	58.47		
Do.....	74,106	333.00	61.76		
Do.....	90,610	408.00	75.51		
November 30.....	24,642	86.00	20.54		
Do.....	22,549	79.00	18.79		
Do.....	23,181	81.00	19.32		
Do.....	22,704	79.00	18.92		
Do.....	18,230	64.00	15.19		
Do.....	21,876	77.00	18.23		
Do.....	22,012	77.00	18.34		
Do.....	25,545	89.00	21.29		
Do.....	22,824	80.00	19.02		
December 2.....	96,975	436.00	80.81		
Do.....	39,970	180.00	33.31		
Do.....	68,466	308.00	57.06		
December 3.....	133,836	602.00	111.53		
Do.....	76,532	344.00	63.78		
Do.....	21,844	76.00	18.20		
Do.....	24,155	85.00	20.13		
Do.....	23,294	82.00	19.41		
Do.....	25,824	90.00	21.52		
December 4.....	47,850	490.00	39.88	13.78	3.45
Do.....	48,269	217.00	40.22		
Do.....	108,415	488.00	90.25		
Do.....	109,140	491.00	90.95		
Do.....	96,228	433.00	80.19		
December 6.....	20,558	72.00	17.13		
Do.....	22,954	80.00	19.13		
Do.....	24,441	86.00	20.37		
Do.....	25,206	88.00	21.01		
Do.....	22,286	78.00	18.57		

Mechanically ground and chemically unbleached pulp of wood imported into the district of Memphremagog (Newport, Vt., port of entry), from January 1, 1907, to June 1, 1908, from the Dominion of Canada, under paragraph 393—Continued.

MECHANICALLY GROUND PULP OF WOOD—Continued.

Date.	Quantity.	Value.	Duty.	Countervailing duty (paragraph 393).	
				Quantity.	Duty.
1907.	<i>Pounds.</i>			<i>Cords.</i>	
December 6	22,282	\$78.00	\$18.57		
December 7	72,653	327.00	60.54		
Do	20,532	72.00	17.11		
Do	85,613	385.00	71.24		
Do	54,363	245.00	45.30		
Do	140,799	634.00	117.33		
Do	108,992	490.00	90.83		
Do	76,332	343.00	63.61		
Do	52,819	238.00	44.02		
December 9	109,034	491.00	90.86		
Do	23,490	82.00	19.58		
December 10	94,105	941.00	78.42	27.10	\$5.78
Do	25,970	91.00	21.64		
Do	24,594	86.00	20.44		
Do	22,527	101.00	18.77		
Do	124,857	552.00	104.06		
December 11	18,279	82.00	15.23		
Do	61,150	275.00	50.96		
December 12	22,560	79.00	18.80		
Do	23,077	81.00	19.23		
December 13	55,095	248.00	45.91		
Do	65,090	293.00	54.24		
Do	42,944	183.00	35.79		
December 14	17,271	78.00	14.39		
Do	108,890	490.00	90.74		
Do	28,345	82.00	19.45		
December 16	55,524	250.00	46.27		
Do	111,549	502.00	92.96		
Do	94,682	426.00	78.90		
December 17	20,383	71.00	16.99		
Do	24,820	87.00	20.68		
Do	74,893	337.00	62.41		
December 18	46,255	474.00	38.55	13.22	3.33
Do	126,044	567.00	105.04		
Do	69,857	314.00	58.21		
Do	77,661	349.00	64.72		
Do	49,411	222.00	41.18		
Do	47,585	214.00	39.65		
Do	17,778	80.00	14.82		
Do	19,158	86.00	15.97		
December 19	35,178	158.00	29.32		
Do	84,476	380.00	70.40		
Do	25,970	91.00	21.64		
Do	23,788	83.00	19.82		
Do	06,562	300.00	55.47		
December 20	24,881	87.00	20.73		
December 21	22,590	79.00	18.82		
December 23	81,345	813.00	67.79	23.43	5.86
Do	21,992	77.00	18.33		
Do	25,375	89.00	21.15		
Do	73,950	758.00	61.63	21.30	5.33
Do	76,622	345.00	63.85		
Do	50,461	227.00	42.04		
Do	91,723	413.00	70.44		
Do	112,052	504.00	93.38		
Do	126,144	568.00	106.12		
Do	34,445	155.00	28.70		
December 24	24,637	86.00	20.53		
December 26	23,112	81.00	19.26		
Do	87,725	877.00	73.10	25.27	6.38
Do	126,994	571.00	105.83		
Do	38,565	174.00	32.14		
Do	45,987	207.00	38.32		
December 27	25,404	89.00	21.17		
Do	22,686	79.00	18.91		
December 28	71,018	320.00	69.18		
Do	71,715	323.00	69.76		
Do	68,549	308.00	67.12		
Do	90,059	405.00	75.06		
Do	51,614	232.00	43.01		
December 30	103,181	464.00	85.98		
Do	103,136	464.00	85.95		
Do	38,259	172.00	31.88		
Do	76,414	344.00	63.68		
December 31	25,069	88.00	20.89		
Do	47,860	490.00	39.88	12.78	3.45

Mechanically ground and chemically unbleached pulp of wood imported into the district of Menphremagog (Newport, Vt., port of entry), from January 1, 1907, to June 1, 1908, from the Dominion of Canada, under paragraph 393—Continued.

MECHANICALLY GROUND PULP OF WOOD—Continued.

Date.	Quantity.	Value.	Duty.	Countervailing duty (paragraph 393).	
				Quantity.	Duty.
1908.	<i>Pounds.</i>			<i>Cords.</i>	
January 1.....	51,362	\$231.00	\$42.80		
January 2.....	109,390	492.00	91.16		
Do.....	75,898	342.00	63.25		
Do.....	70,054	315.00	58.38		
Do.....	47,850	490.00	39.88	13.78	\$3.46
Do.....	23,735	83.00	19.78		
January 6.....	23,364	82.00	19.47		
January 7.....	23,457	82.00	19.55		
Do.....	26,431	89.00	21.19		
Do.....	112,500	506.00	93.75		
Do.....	122,275	550.00	101.90		
Do.....	98,665	444.00	82.22		
Do.....	114,100	513.00	95.08		
Do.....	76,445	344.00	63.70		
Do.....	43,773	197.00	36.48		
Do.....	42,629	192.00	35.52		
January 8.....	40,600	519.00	42.17	14.57	3.64
January 9.....	23,573	83.00	19.64		
Do.....	24,348	85.00	20.29		
Do.....	24,480	86.00	20.40		
January 10.....	78,940	355.00	65.78		
January 11.....	23,625	82.00	19.60		
January 13.....	20,580	72.00	17.15		
January 16.....	26,284	92.00	21.90		
January 17.....	22,440	79.00	18.70		
January 18.....	78,706	787.00	65.59	22.67	5.67
January 21.....	41,039	185.00	34.20		
Do.....	44,660	458.00	37.22	12.86	3.22
January 22.....	22,330	223.00	18.61	6.43	1.61
January 24.....	23,521	82.00	19.60		
Do.....	115,076	518.00	95.90		
Do.....	43,822	197.00	36.52		
Do.....	79,007	356.00	65.84		
Do.....	35,550	160.00	29.63		
January 25.....	55,841	251.00	46.53		
January 27.....	60,562	273.00	50.47		
Do.....	90,171	406.00	75.14		
Do.....	64,300	289.00	53.59		
February 1.....	25,925	91.00	21.60		
Do.....	40,358	222.00	41.13		
Do.....	54,576	246.00	45.48		
February 3.....	38,833	175.00	32.36		
Do.....	50,014	225.00	41.68		
Do.....	72,069	324.00	60.06		
February 5.....	35,806	161.00	29.84		
Do.....	24,375	110.00	20.31		
February 7.....	48,519	218.00	40.43		
February 10.....	38,322	172.00	31.94		
Do.....	17,426	78.00	14.52		
Do.....	24,783	87.00	20.65		
Do.....	25,422	89.00	21.19		
Do.....	25,540	89.00	21.28		
February 11.....	53,517	241.00	44.60		
February 12.....	104,043	468.00	86.70		
Do.....	39,582	178.00	32.99		
Do.....	27,730	97.00	23.11		
Do.....	25,526	89.00	21.27		
Do.....	44,060	335.00	37.22	12.86	3.22
February 14.....	47,410	486.00	39.51	13.65	3.41
February 15.....	26,400	92.00	22.00		
February 17.....	26,400	92.00	22.00		
February 18.....	36,664	165.00	30.55		
Do.....	153,181	689.00	127.65		
February 19.....	145,340	654.00	121.12		
Do.....	37,123	167.00	30.94		
Do.....	49,455	223.00	41.21		
February 20.....	52,710	237.00	43.93		
Do.....	147,073	662.00	122.56		
Do.....	59,700	269.00	49.75		
Do.....	23,500	82.00	19.58		
February 21.....	35,145	351.00	39.29	10.12	2.53
Do.....	82,935	373.00	69.11		
February 22.....	241,826	1,088.00	201.52		
Do.....	192,528	886.00	160.44		
Do.....	50,333	226.00	41.94		
Do.....	39,216	176.00	32.68		

Mechanically ground and chemically unbleached pulp of wood imported into the district of Memphremagog (Newport, Vt., port of entry), from January 1, 1907, to June 1, 1908, from the Dominion of Canada, under paragraph 593—Continued.

MECHANICALLY GROUND PULP OF WOOD—Continued.

Date.	Quantity.	Value.	Duty.	Countervailing duty (paragraph 593).	
				Quantity.	Duty.
	<i>Pounds.</i>			<i>Cords.</i>	
February 22. 1908.	25,291	\$89.00	\$21.08		
February 25.	26,626	93.00	22.19		
February 26.	33,495	243.00	27.91	9.66	\$2.41
Do.	37,082	167.00	30.90		
Do.	46,185	208.00	38.49		
Do.	76,673	345.00	63.89		
Do.	134,813	607.00	112.34		
Do.	219,166	986.00	182.64		
Do.	229,291	1,032.00	191.08		
February 28.	35,621	180.00	29.68		
Do.	115,040	518.00	95.87		
Do.	33,495	243.00	27.91	9.66	2.41
February 29.	24,420	85.00	20.35		
March 2.	22,330	261.00	18.61	6.43	1.61
Do.	24,252	85.00	20.21		
Do.	104,189	469.00	86.82		
Do.	115,611	520.00	96.34		
Do.	44,448	200.00	37.04		
Do.	42,338	191.00	35.28		
Do.	45,279	204.00	37.73		
Do.	41,671	188.00	34.73		
March 3.	26,231	92.00	21.86		
March 4.	23,628	83.00	19.66		
Do.	180,774	813.00	150.65		
March 6.	26,282	92.00	21.90		
Do.	184,691	831.00	153.91		
Do.	163,411	735.00	136.18		
Do.	188,351	848.00	166.96		
Do.	167,665	754.00	139.72		
Do.	44,739	201.00	37.28		
Do.	51,983	234.00	43.32		
March 7.	229,765	874.00	191.47		
March 9.	78,155	801.00	65.13	22.51	5.63
Do.	26,088	91.00	21.70		
March 10.	54,952	247.00	45.79		
March 11.	45,131	203.00	37.61		
Do.	147,615	664.00	123.01		
March 12.	25,876	91.00	21.56		
Do.	26,004	91.00	21.67		
March 14.	140,753	633.00	117.29		
Do.	99,116	446.00	82.60		
Do.	152,216	685.00	126.85		
Do.	51,363	231.00	42.80		
Do.	46,252	208.00	38.54		
March 16.	74,111	333.00	61.76		
Do.	64,726	291.00	53.94		
Do.	117,280	528.00	97.73		
Do.	177,805	800.00	148.17		
Do.	26,494	93.00	22.08		
March 18.	66,990	687.00	55.83	19.29	4.82
March 19.	66,990	754.00	55.83	19.29	4.82
March 21.	160,220	721.00	133.52		
Do.	144,894	652.00	120.75		
Do.	141,667	638.00	118.06		
Do.	26,942	94.00	22.45		
March 23.	47,960	554.00	59.97	13.81	3.46
March 27.	43,068	194.00	35.89		
March 28.	41,804	188.00	34.84		
Do.	55,436	249.00	46.20		
Do.	44,543	200.00	37.12		
Do.	77,748	350.00	64.79		
Do.	78,443	353.00	65.37		
Do.	75,800	341.00	63.17		
Do.	51,721	233.00	43.10		
Do.	75,240	339.00	62.70		
Do.	63,221	284.00	52.68		
March 30.	77,459	309.00	64.55		
Do.	22,330	246.00	18.61	6.43	1.61
April 1.	70,681	724.00	58.90	20.36	5.09
April 2.	55,437	246.00	46.20		
Do.	51,912	234.00	43.26		
Do.	46,095	207.00	38.41		
Do.	54,439	245.00	45.39		
April 3.	52,448	236.00	43.71		

Mechanically ground and chemically unbleached pulp of wood imported into the district of Memphremagog (Newport, Vt., port of entry), from January 1, 1907, to June 1, 1908, from the Dominion of Canada, under paragraph 393—Continued.

MECHANICALLY GROUND PULP OF WOOD—Continued.

Date.	Quantity.	Value.	Duty.	Countervailing duty (paragraph 393).	
				Quantity.	Duty.
1908.	<i>Pounds.</i>			<i>Cords.</i>	
April 4.....	25,380	\$86.00	\$21.15		
Do.....	33,495	377.00	27.91	9.65	\$2.41
April 7.....	25,408	89.00	21.17		
Do.....	44,660	447.00	37.22	12.86	3.22
Do.....	36,245	406.00	30.20	10.44	2.61
Do.....	75,152	338.00	62.63		
Do.....	118,390	533.00	98.66		
Do.....	61,904	234.00	43.25		
Do.....	45,304	204.00	37.75		
April 8.....	74,726	336.00	62.27		
April 9.....	23,178	81.00	19.32		
April 13.....	23,658	83.00	19.72		
April 15.....	24,271	85.00	20.23		
Do.....	22,622	83.00	19.69		
Do.....	70,771	318.00	68.98		
Do.....	80,859	364.00	67.38		
Do.....	153,744	692.00	128.12		
April 16.....	42,818	193.00	35.68		
Do.....	102,501	461.00	85.42		
Do.....	51,756	233.00	43.13		
Do.....	112,236	505.00	93.53		
April 17.....	24,177	85.00	20.15		
April 20.....	42,673	192.00	35.56		
Do.....	90,406	407.00	75.34		
Do.....	100,168	451.00	83.47		
Do.....	109,623	493.00	91.35		
April 22.....	19,384	68.00	16.15		
April 23.....	45,257	204.00	37.71		
Do.....	142,610	642.00	118.84		
Do.....	133,812	602.00	111.51		
Do.....	65,126	293.00	64.27		
April 24.....	23,512	82.00	19.59		
April 27.....	116,043	522.00	96.70		
Do.....	78,261	352.00	65.22		
April 28.....	70,000	315.00	68.33		
Do.....	38,745	174.00	32.29		
April 30.....	23,650	83.00	19.71		
Do.....	101,508	457.00	84.59		
Do.....	41,101	185.00	34.25		
May 2.....	89,320	960.00	74.43	25.72	6.43
May 6.....	33,000	363.00	27.50	9.50	2.38
May 8.....	24,821	87.00	20.68		
May 11.....	87,125	392.00	72.60		
May 13.....	100,836	454.00	84.03		
Do.....	133,311	600.00	111.09		
Do.....	140,074	630.00	116.73		
Do.....	55,669	251.00	46.39		
Do.....	37,619	169.00	31.35		
Do.....	54,987	247.00	45.82		
Do.....	102,215	460.00	85.18		
Do.....	22,854	80.00	19.05		
Do.....	24,965	87.00	20.80		
May 14.....	74,849	337.00	62.37		
May 15.....	25,421	89.00	21.18		
Do.....	34,465	155.00	28.72		
May 16.....	25,392	89.00	21.16		
Do.....	45,682	206.00	38.07		
Do.....	100,880	454.00	84.07		
May 18.....	64,851	292.00	54.04		
Do.....	102,923	463.00	85.77		
Do.....	113,700	512.00	94.75		
Do.....	37,980	171.00	31.65		
May 21.....	39,175	176.00	32.65		
Do.....	156,842	706.00	130.70		
Do.....	27,312	96.00	22.76		
Do.....	23,255	81.00	19.38		
May 22.....	20,847	73.00	17.37		
Do.....	41,076	185.00	34.23		
Do.....	77,752	350.00	64.79		
Do.....	76,003	342.00	63.34		
Do.....	151,579	682.00	126.32		
Do.....	42,710	192.00	35.59		
Do.....	110,100	495.00	91.75		
May 23.....	25,896	91.00	21.58		
Do.....	36,321	163.00	30.27		

Mechanically ground and chemically unbleached pulp of wood imported into the district of Memphremagog (Newport, Vt., port of entry), from January 1, 1907, to June 1, 1908, from the Dominion of Canada, under paragraph 393—Continued.

MECHANICALLY GROUND PULP OF WOOD—Continued.

Date.	Quantity.	Value.	Duty.	Countervailing duty (paragraph 393).	
				Quantity.	Duty.
1908.	<i>Pounds.</i>			<i>Cords.</i>	
May 23.....	25,738	\$90.00	\$21.45		
May 27.....	152,013	684.00	126.68		
Do.....	51,066	230.00	42.56		
Do.....	36,940	166.00	30.78		
May 29.....	25,920	91.00	21.60		
Do.....	25,920	91.00	21.60		
Do.....	32,532	114.00	27.11		
Total.....	69,529,519	358,031.00	57,941.68	3,300.70	\$825.43

CHEMICALLY UNBLEACHED PULP OF WOOD.

Date.	Quantity.	Value.	Duty.	Countervailing duty (paragraph 393).	
				Quantity.	Duty.
1907.	<i>Pounds.</i>			<i>Cords.</i>	
January 2.....	44,268	\$644.00	\$73.78		
Do.....	37,040	540.00	61.73		
Do.....	54,614	794.00	91.02		
January 3.....	53,061	772.00	88.49		
Do.....	25,949	892.00	43.25		
January 5.....	26,447	831.00	80.75		
January 7.....	51,743	763.00	86.24		
Do.....	49,391	719.00	82.32		
Do.....	72,621	1,896.00	121.04	35.79	\$8.95
January 9.....	40,180	605.00	66.92		
Do.....	31,339	473.00	52.23		
Do.....	44,626	650.00	74.38		
Do.....	43,934	662.00	73.22		
January 10.....	25,322	515.00	58.87		
January 11.....	25,651	519.00	59.42		
Do.....	25,280	635.00	65.80	18.90	4.73
January 14.....	43,940	640.00	73.23		
Do.....	37,276	543.00	62.13		
Do.....	30,471	460.00	50.79		
Do.....	36,982	577.00	61.64		
January 15.....	46,176	672.00	76.96		
Do.....	24,967	327.00	38.31		
Do.....	28,712	433.00	47.85		
Do.....	43,821	638.00	73.04		
January 16.....	24,354	518.00	57.26		
Do.....	31,884	481.00	53.14		
January 19.....	37,156	560.00	61.93		
January 21.....	35,427	516.00	59.05		
Do.....	44,337	645.00	73.90		
Do.....	22,923	496.00	54.87		
January 22.....	23,991	512.00	56.65		
January 23.....	47,313	699.00	78.86		
January 24.....	129,896	2,176.00	201.49	64.77	16.19
January 28.....	46,577	678.00	77.63		
January 29.....	44,626	650.00	74.38		
January 31.....	53,228	801.00	88.71		
Do.....	27,181	569.00	61.97		
February 5.....	47,660	694.00	79.43		
Do.....	28,214	576.00	63.69		
Do.....	36,787	536.00	61.31		
Do.....	82,743	1,205.00	137.91		
February 6.....	92,230	1,342.00	153.72		
February 9.....	40,942	617.00	68.24		
February 12.....	80,455	1,209.00	124.09		
February 15.....	42,652	643.00	71.14		
Do.....	49,202	716.00	82.00		
February 18.....	81,586	1,188.00	125.98		
Do.....	28,300	577.00	63.83		
Do.....	43,493	633.00	72.49		
February 19.....	25,100	329.00	38.50		
Do.....	23,579	304.00	35.97		
Do.....	42,595	641.00	70.99		
February 23.....	53,242	775.00	88.74		
February 26.....	38,636	563.00	64.39		
Do.....	86,062	1,253.00	143.44		
Do.....	94,551	1,376.00	157.59		
Do.....	27,193	542.00	61.99		

Mechanically ground and chemically unbleached pulp of wood imported into the district of Memphremagog (Newport, Vt., port of entry), from January 1, 1907, to June 1, 1908, from the Dominion of Canada, under paragraph 393—Continued.

CHEMICALLY UNBLEACHED PULP OF WOOD—Continued.

Date.	Quantity.	Value.	Duty.	Countervailing duty (paragraph 393).	
				Quantity.	Duty.
1907.	Pounds.			Cords.	
February 28.....	37,308	\$543.00	\$62.18		
Do.....	38,306	558.00	63.84		
March 1.....	18,269	702.00	80.45		
March 4.....	56,471	821.00	94.12		
Do.....	96,929	1,306.00	144.88		
March 7.....	84,480	1,230.00	140.82		
Do.....	47,533	692.00	79.22		
Do.....	39,980	580.00	66.43		
March 8.....	55,176	803.00	91.96		
March 9.....	44,235	696.00	79.73		
Do.....	40,343	587.00	67.24		
Do.....	37,162	559.00	61.94		
March 13.....	49,008	718.00	81.68		
March 15.....	37,436	563.00	62.39		
March 18.....	87,294	1,271.00	145.49		
Do.....	139,022	2,023.00	231.70		
Do.....	115,642	1,664.00	192.74		
March 19.....	45,519	685.00	75.87		
Do.....	77,150	1,124.00	128.58		
March 20.....	145,419	2,189.00	242.37		
March 21.....	39,454	593.00	65.76		
Do.....	37,951	553.00	63.25		
Do.....	38,554	562.00	64.26		
Do.....	38,412	559.00	64.02		
March 22.....	86,296	1,296.00	143.83		
Do.....	73,938	1,112.00	123.23		
Do.....	75,067	1,093.00	125.11		
March 23.....	162,545	1,541.00	170.91		
Do.....	34,841	524.00	58.07		
March 25.....	75,262	1,131.00	125.44		
Do.....	86,716	1,262.00	144.53		
March 26.....	84,967	1,279.00	141.51		
Do.....	35,976	542.00	59.96		
March 27.....	114,964	1,732.00	191.61		
Do.....	123,452	1,856.00	205.75		
Do.....	136,610	2,061.00	228.18		
Do.....	123,677	1,863.00	206.13		
Do.....	84,846	1,278.00	141.41		
March 28.....	91,096	1,371.00	151.83		
Do.....	92,391	1,391.00	153.99		
Do.....	93,756	1,411.00	156.26		
Do.....	41,005	618.00	68.34		
March 29.....	74,739	1,124.00	124.57		
Do.....	46,835	706.00	78.16		
Do.....	56,523	850.00	94.21		
Do.....	93,756	1,411.00	156.26		
March 30.....	69,656	1,047.00	116.09		
April 1.....	47,148	710.00	78.58		
Do.....	47,334	713.00	78.89		
Do.....	36,680	553.00	61.13		
Do.....	46,391	698.00	77.32		
Do.....	140,484	2,115.00	234.14		
Do.....	85,329	1,265.00	142.23		
Do.....	55,740	839.00	92.90		
April 2.....	38,202	576.00	63.67		
April 3.....	46,633	702.00	77.72		
Do.....	46,485	700.00	77.48		
April 4.....	49,384	743.00	82.31		
Do.....	55,388	833.00	92.31		
Do.....	46,905	705.00	78.01		
Do.....	86,944	1,307.00	144.91		
April 5.....	45,327	682.00	75.55		
April 8.....	54,626	822.00	91.04		
April 10.....	100,488	1,512.00	167.48		
Do.....	160,886	2,421.00	268.14		
Do.....	37,708	568.00	62.85		
April 11.....	109,880	1,653.00	183.13		
April 12.....	38,890	585.00	64.77		
April 13.....	45,768	689.00	76.28		
April 15.....	46,360	698.00	77.27		
April 16.....	46,010	693.00	76.58		
April 19.....	84,462	1,272.00	140.77		
April 20.....	82,954	797.00	88.26		
Do.....	68,618	1,032.00	114.86		

Mechanically ground and chemically unbleached pulp of wood imported into the district of Memphremagog (Newport, Vt., port of entry), from January 1, 1907, to June 1, 1908, from the Dominion of Canada, under paragraph 393—Continued.

CHEMICALLY UNBLEACHED PULP OF WOOD—Continued.

Date.	Quantity.	Value.	Duty.	Countervailing duty (paragraph 393).	
				Quantity.	Duty.
1907.	<i>Pounds.</i>			<i>Cords.</i>	
April 23.	80,829	\$1,217.00	\$184.72		
Do.	36,935	557.00	61.56		
Do.	35,232	531.00	58.72		
April 24.	62,465	940.00	104.14		
Do.	46,232	696.00	77.05		
May 2.	49,437	744.00	82.40		
Do.	46,942	707.00	78.24		
Do.	98,487	1,482.00	164.15		
Do.	75,866	1,140.00	126.44		
Do.	66,825	1,005.00	111.38		
May 4.	94,404	1,421.00	157.34		
May 8.	45,850	690.00	76.42		
Do.	82,722	1,246.00	137.87		
May 14.	84,671	523.00	57.79		
May 15.	44,394	668.00	73.99		
Do.	59,258	891.00	98.76		
May 16.	58,614	882.00	97.69		
May 17.	52,280	787.00	87.13		
Do.	99,508	1,498.00	165.85		
Do.	48,169	725.00	80.28		
May 20.	89,060	1,341.00	148.43		
Do.	46,362	698.00	77.27		
May 24.	81,305	1,222.00	135.51		
Do.	44,892	676.00	74.82		
Do.	102,436	1,542.00	170.73		
May 28.	78,389	1,178.00	130.65		
Do.	86,272	1,299.00	143.79		
Do.	88,222	1,328.00	147.04		
Do.	96,504	1,453.00	160.84		
May 29.	45,085	679.00	75.14		
June 3.	44,277	667.00	73.80		
Do.	41,514	625.00	69.19		
June 4.	36,666	552.00	61.11		
Do.	75,116	1,129.00	125.19		
June 6.	88,644	1,335.00	147.74		
June 7.	37,276	560.00	62.13		
Do.	93,817	1,412.00	156.36		
June 10.	35,753	538.00	59.59		
June 11.	102,250	1,539.00	170.42		
Do.	72,593	1,094.00	120.99		
June 12.	120,848	1,820.00	201.41		
June 13.	94,283	1,419.00	157.14		
Do.	44,365	668.00	73.94		
Do.	88,923	1,336.00	148.21		
Do.	91,897	1,383.00	153.16		
June 14.	82,547	1,243.00	137.68		
Do.	74,808	1,124.00	124.68		
June 15.	50,068	753.00	83.43		
June 18.	117,473	1,765.00	195.79		
Do.	80,451	1,212.00	134.06		
Do.	95,936	1,444.00	159.89		
Do.	74,006	1,115.00	123.34		
Do.	46,455	699.00	77.43		
June 22.	93,560	1,408.00	155.93		
June 25.	43,723	658.00	72.87		
Do.	44,031	663.00	73.39		
June 28.	81,306	1,225.00	135.51		
June 29.	90,800	1,367.00	151.37		
Do.	44,225	666.00	73.71		
Do.	79,896	1,201.00	133.14		
July 1.	82,551	1,241.00	137.59		
Do.	37,383	563.00	62.31		
Do.	107,012	1,610.00	178.35		
Do.	96,189	1,448.00	160.32		
July 5.	91,090	1,371.00	151.82		
Do.	52,344	788.00	87.24		
Do.	48,340	728.00	80.57		
July 6.	77,941	1,174.00	129.90		
July 8.	94,380	1,421.00	157.30		
July 9.	48,898	736.00	81.50		
July 10.	93,407	1,406.00	155.68		
July 16.	52,952	797.00	88.25		
Do.	57,865	870.00	96.44		
Do.	46,466	684.00	75.78		

Mechanically ground and chemically unbleached pulp of wood imported into the district of Memphremagog (Newport, Vt., port of entry), from January 1, 1907, to June 1, 1908, from the Dominion of Canada, under paragraph 393—Continued.

CHEMICALLY UNBLEACHED PULP OF WOOD—Continued.

Date.	Quantity.	Value.	Duty.	Countervailing duty (paragraph 333).	
				Quantity.	Duty.
1907.	Pounds.			Cords.	
July 17.	46,006	\$863.00	\$76.68		
July 18.	50,934	767.00	84.89		
Do.	47,884	721.00	79.81		
Do.	111,188	1,673.00	185.31		
July 22.	45,040	678.00	75.07		
July 23.	85,148	1,282.00	141.91		
July 25.	93,646	1,410.00	156.08		
Do.	78,927	1,189.00	131.55		
July 26.	38,425	579.00	64.04		
July 29.	138,974	2,092.00	231.62		
July 30.	89,988	1,355.00	149.98		
August 1.	91,410	1,381.00	152.85		
August 2.	89,396	1,346.00	148.99		
Do.	103,365	1,555.00	172.28		
August 6.	97,009	1,460.00	161.68		
August 7.	43,940	662.00	73.23		
August 8.	45,433	684.00	75.72		
August 13.	95,722	1,441.00	159.54		
August 15.	85,892	1,293.00	143.15		
Do.	120,480	1,813.00	200.63		
Do.	43,055	648.00	71.78		
August 19.	97,032	1,460.00	161.72		
Do.	88,014	1,325.00	146.69		
August 21.	81,901	1,234.00	136.50		
August 23.	93,159	1,402.00	155.27		
August 24.	51,300	772.00	85.50		
August 27.	88,961	1,339.00	148.27		
Do.	90,567	1,364.00	150.95		
Do.	83,279	1,254.00	138.80		
August 31.	50,340	758.00	83.90		
September 2.	91,911	1,384.00	153.19		
September 5.	81,811	1,232.00	136.35		
Do.	88,816	1,337.00	148.03		
September 9.	77,511	1,168.00	129.19		
September 11.	122,222	1,841.00	203.70		
Do.	90,583	1,364.00	150.97		
Do.	41,062	618.00	68.44		
September 14.	52,580	791.00	87.63		
Do.	105,008	1,583.00	175.01		
September 17.	71,445	1,077.00	119.08		
Do.	83,424	1,256.00	139.04		
September 18.	123,221	1,856.00	206.37		
September 19.	77,200	1,163.00	128.66		
September 20.	45,896	691.00	76.49		
Do.	78,101	1,177.00	130.17		
Do.	113,628	1,712.00	189.38		
Do.	96,425	1,451.00	160.71		
September 23.	46,173	695.00	76.96		
September 24.	80,644	1,215.00	134.41		
September 25.	79,981	1,205.00	133.30		
Do.	44,103	664.00	73.51		
September 26.	82,642	1,245.00	137.74		
September 27.	91,251	1,374.00	152.09		
September 28.	113,258	1,706.00	188.76		
October 1.	121,688	1,833.00	202.81		
Do.	39,800	600.00	66.33		
October 3.	101,555	1,531.00	169.26		
Do.	78,052	1,176.00	130.09		
Do.	72,514	1,093.00	120.86		
October 9.	44,720	673.00	74.53		
Do.	70,168	1,058.00	116.95		
October 10.	70,207	1,058.00	117.01		
October 16.	84,272	1,170.00	128.12		
October 17.	80,542	1,213.00	134.24		
Do.	77,103	1,162.00	128.51		
Do.	73,998	1,115.00	123.33		
October 18.	68,956	1,039.00	114.93		
October 23.	66,540	1,003.00	110.90		
October 29.	79,454	1,534.00	132.42	30.16	\$0.79
November 1.	75,475	1,137.00	125.79		
November 2.	68,345	1,030.00	113.91		
November 4.	35,127	529.00	58.55		
November 5.	74,528	1,128.00	124.21		
November 7.	34,407	519.00	57.35		

Mechanically ground and chemically unbleached pulp of wood imported into the district of Memphremagog (Newport, Vt., port of entry), from January 1, 1907, to June 1, 1908, from the Dominion of Canada, under paragraph 393—Continued.

CHEMICALLY UNBLEACHED PULP OF WOOD—Continued.

Date.	Quantity.	Value.	Duty.	Countervailing duty (paragraph 393).	
				Quantity.	Duty.
1907.	<i>Pounds.</i>			<i>Cords.</i>	
November 8.	78,972	\$1,115.00	\$123.29		
November 11.	53,054	951.00	105.09		
November 12.	114,712	1,728.00	191.19		
Do.	87,756	589.00	62.93		
Do.	114,264	1,721.00	190.44		
Do.	80,673	901.00	91.12		
November 15.	116,703	1,745.00	192.84		
November 18.	86,578	1,838.00	143.30		
Do.	105,224	1,582.00	175.37	42.67	\$10.67
November 19.	78,080	1,110.00	122.80		
Do.	32,384	808.00	53.89	22.10	5.78
November 21.	39,777	1,202.00	122.96		
Do.	71,303	1,075.00	118.84		
Do.	78,384	1,187.00	120.64		
Do.	33,573	644.00	55.96	16.55	4.14
November 23.	41,253	621.00	68.77		
November 26.	80,171	1,208.00	133.69		
November 29.	67,024	1,010.00	111.71		
Do.	85,082	1,251.00	138.44		
November 30.	124,712	2,031.00	224.52		
December 2.	80,123	1,207.00	133.54		
Do.	75,729	1,141.00	126.22		
December 4.	73,572	1,109.00	122.62		
December 5.	70,665	1,065.00	117.78		
December 7.	80,212	1,208.00	133.81		
Do.	47,883	721.00	79.81		
December 9.	86,639	1,302.00	144.38		
Do.	82,088	1,236.00	136.81		
December 10.	48,322	727.00	80.54		
Do.	67,000	1,010.00	111.67		
Do.	105,429	1,589.00	175.72		
December 11.	113,476	1,710.00	189.13		
December 12.	161,750	2,436.00	269.58		
December 16.	43,710	1,083.00	72.85		
December 17.	126,222	1,901.00	210.37		
December 18.	82,389	1,241.00	137.32		
December 19.	40,604	1,015.00	67.77		
December 24.	41,264	621.00	68.77		
December 26.	81,607	1,077.00	122.68		
December 28.	72,768	1,097.00	121.28		
December 30.	68,566	958.00	105.94		
Do.	2,580	52.00	4.30		
Do.	39,677	982.00	66.13		
December 31.	48,064	732.00	81.11		
Do.	48,082	732.00	81.09		
Do.	83,302	1,255.00	138.84		
Do.	83,410	835.00	85.68		
1908.					
January 2.	70,249	1,059.00	117.08		
January 3.	59,674	598.00	66.12		
Do.	35,986	542.00	59.89		
January 4.	40,106	604.00	66.84		
Do.	35,627	965.00	64.38		
January 6.	81,440	474.00	52.40		
January 9.	37,784	569.00	62.86		
Do.	35,030	536.00	59.38		
January 10.	80,514	460.00	50.86		
January 11.	75,962	1,144.00	126.59		
Do.	84,872	823.00	88.12		
January 13.	42,869	645.00	71.83		
Do.	81,217	1,220.00	125.86		
January 16.	42,342	638.00	70.57		
Do.	35,478	533.00	59.13		
Do.	83,031	1,247.00	133.39		
Do.	37,330	561.00	62.22		
January 17.	83,198	1,980.00	128.06		
January 18.	44,477	668.00	74.13		
January 20.	70,584	1,064.00	117.64		
January 21.	33,491	503.00	55.82		
Do.	121,310	1,827.00	202.18		
Do.	37,596	546.00	62.06		
Do.	44,382	668.00	73.92		

Mechanically ground and chemically unbleached pulp of wood imported into the district of Memphremagog (Newport, Vt., port of entry), from January 1, 1907, to June 1, 1908, from the Dominion of Canada, under paragraph 593—Continued.

CHEMICALLY UNBLEACHED PULP OF WOOD—Continued.

Date.	Quantity.	Value.	Duty.	Countervailing duty (paragraph 593).	
				Quantity.	Duty.
1908.	<i>Pounds.</i>			<i>Cords.</i>	
January 22.....	123,957	\$1,867.00	\$306.81		
Do.....	71,110	1,072.00	118.52		
Do.....	69,400	1,046.00	115.67		
Do.....	130,018	1,958.00	216.70		
Do.....	38,061	573.00	63.44		
January 24.....	124,050	1,868.00	206.75		
Do.....	77,392	1,166.00	128.99		
January 27.....	81,438	1,224.00	135.72		
Do.....	77,580	1,166.00	129.80		
January 28.....	39,428	594.00	65.71		
Do.....	74,189	1,118.00	123.65		
January 29.....	39,603	590.00	66.01		
January 31.....	37,801	546.00	63.00		
February 1.....	43,494	655.00	72.47		
February 6.....	73,744	1,096.00	121.24		
February 8.....	44,352	667.00	73.92		
February 12.....	41,292	621.00	68.52		
Do.....	59,592	1,532.00	149.32		
Do.....	110,363	1,663.00	183.94		
Do.....	46,224	696.00	77.04		
February 13.....	116,543	1,756.00	194.24		
February 14.....	46,228	696.00	77.05		
Do.....	77,802	1,172.00	129.67		
February 19.....	74,290	1,119.00	123.80		
February 23.....	46,975	692.00	76.63		
February 25.....	43,400	654.00	72.43		
Do.....	45,510	685.00	75.86		
Do.....	37,041	568.00	61.74		
Do.....	38,925	596.00	64.88		
February 27.....	34,153	515.00	56.92		
Do.....	43,394	653.00	72.32		
Do.....	37,802	570.00	63.00		
Do.....	83,134	1,252.00	138.56		
February 28.....	46,113	694.00	76.86		
Do.....	40,952	617.00	68.25		
Do.....	88,846	1,341.00	148.08		
Do.....	108,410	1,634.00	180.68		
February 29.....	34,054	513.00	56.76		
Do.....	41,143	620.00	68.57		
March 2.....	33,081	499.00	55.14		
March 5.....	46,709	688.00	76.18		
March 6.....	37,579	547.00	63.13		
March 7.....	40,437	609.00	67.40		
March 11.....	80,552	1,213.00	134.25		
Do.....	39,120	599.00	65.20		
Do.....	36,855	555.00	61.43		
March 12.....	35,241	531.00	58.74		
March 14.....	107,520	1,620.00	179.20		
Do.....	78,913	1,189.00	131.52		
Do.....	45,183	690.00	75.31		
March 16.....	123,473	1,860.00	205.79		
Do.....	36,547	514.00	60.91		
Do.....	40,390	606.00	67.32		
March 17.....	79,706	1,201.00	132.84		
Do.....	33,140	500.00	55.23		
Do.....	32,744	494.00	54.57		
March 18.....	37,498	565.00	62.49		
Do.....	38,908	596.00	64.84		
Do.....	36,990	557.00	61.63		
March 23.....	38,916	596.00	64.86		
Do.....	159,398	2,401.00	265.66		
Do.....	31,344	473.00	52.24		
March 24.....	122,868	1,854.00	204.78		
Do.....	41,258	621.00	68.76		
March 27.....	81,840	1,233.00	136.40		
March 28.....	37,741	569.00	62.90		
March 31.....	46,875	706.00	78.13		
April 2.....	86,968	1,316.00	144.95		
Do.....	83,570	1,261.00	139.28		
April 3.....	40,694	614.00	67.81		
April 6.....	34,660	567.00	57.77		
April 7.....	48,936	737.00	81.56		
April 8.....	38,362	569.00	68.94		

Mechanically ground and chemically unbleached pulp of wood imported into the district of Memphremagog (Newport, Vt., port of entry), from January 1, 1907, to June 1, 1908, from the Dominion of Canada, under paragraph 393—Continued.

CHEMICALLY UNBLEACHED PULP OF WOOD—Continued.

Date.	Quantity.	Value.	Duty.	Countervalling duty (paragraph 393).	
				Quantity.	Duty.
1908.	<i>Pounds.</i>			<i>Cords.</i>	
April 21.....	49,792	\$749.00	\$82.99		
Do.....	46,934	707.00	78.22		
April 24.....	47,355	713.00	78.93		
April 28.....	45,035	678.00	75.06		
April 29.....	45,735	699.00	76.23		
May 4.....	42,708	643.00	71.18		
May 6.....	88,480	1,332.00	147.47		
May 13.....	37,171	560.00	61.95		
May 19.....	126,712	1,908.00	211.19		
Do.....	101,222	1,518.00	168.70		
May 20.....	85,483	1,287.00	142.47		
Do.....	89,863	1,338.00	148.11		
May 22.....	42,313	637.00	70.52		
May 23.....	77,334	1,167.00	128.89		
May 26.....	38,604	582.00	64.34		
Do.....	40,966	617.00	68.28		
May 27.....	84,574	1,274.00	140.96		
Do.....	64,346	1,359.00	90.58		
May 29.....	70,971	1,071.00	118.29		
Total.....	28,880,158	441,404.00	48,134.00	240.94	\$80.35

No importations during the period from January 1, 1907, to June 1, 1908, of filter masse or filter stock under paragraph 395 of the tariff act of 1897.

Printing paper, valued above 2 cents and not above 2½ cents a pound, imported into the district of Memphremagog (Newport, Vt., port of entry) from January 1, 1907, to June 1, 1908, from the Dominion of Canada under paragraph 396, was as follows: November 15, 1907, 15,509 pounds, valued at \$349; duty, \$62.04.

Pulp woods imported into the district of Memphremagog (Newport, Vt., port of entry) from January 1, 1907, to June 1, 1908, from the Dominion of Canada under paragraph 639.

Date.	Quantity.	Value.	Date.	Quantity.	Value.
1907.			1907.		
January.....	<i>Cords.</i> 25,820	\$108,207.00	December.....	<i>Cords.</i> 21,910	\$124,323.00
February.....	16,312	69,790.00	1908.		
March.....	22,230	94,248.00	January.....	27,231	185,951.00
April.....	35,421	144,278.00	February.....	29,255	172,305.00
May.....	20,494	85,918.00	March.....	45,823	271,394.00
June.....	22,796	103,059.00	April.....	35,793	214,345.00
July.....	23,050	126,370.00	May.....	12,505	72,009.00
August.....	23,246	131,954.00	Total.....		
September.....	14,701	83,340.00		404,910	2,117,401.00
October.....	10,891	61,727.00			
November.....	17,442	97,166.00			

PORT OF BALTIMORE, MD.

Tabulated statement of wood pulp imported into the port of Baltimore, Md., showing the various kinds, the date of arrival, quantity, appraised value, and country of origin of each importation, together with the duties collected thereon, from January 1, 1907, to June 1, 1908.

WOOD PULP, MECHANICALLY GROUND.

Country of origin.	Date of arrival.	Quantity.	Appraised value.	Rate of duty.	Duty.
		<i>Pounds.</i>			
Germany.....	Mar. 19, 1907	115,000	\$805.00	One-twelfth of a cent.....	\$65.83

UNBLEACHED CHEMICAL WOOD PULP.

		<i>Pounds.</i>			
Germany.....	Jan. 29, 1907	56,000	\$1,095.00	One-sixth of a cent.....	\$93.33
Do.....	Feb. 11, 1907	312,231	6,314.00	do.....	520.54
Do.....	Feb. 18, 1907	72,455	1,504.00	do.....	120.76
Do.....	Feb. 19, 1907	73,900	1,773.00	do.....	184.75
Do.....	Mar. 6, 1907	269	3.00	do.....	.45
Russia.....	Apr. 30, 1907	55,843	932.00	do.....	93.07
Germany.....	May 14, 1907	133,409	2,541.00	do.....	222.35
Do.....	May 20, 1907	276,139	5,354.00	do.....	460.23
Do.....	May 31, 1907	178,529	3,420.00	do.....	297.55
Do.....	June 17, 1907	33,598	642.00	do.....	56.00
Do.....	June 28, 1907	187,484	3,802.00	do.....	312.47
Do.....	July 3, 1907	44,797	746.00	do.....	74.66
Do.....	July 5, 1907	324,551	5,928.00	do.....	540.92
Sweden.....	July 6, 1907	156,800	2,823.00	do.....	261.33
Do.....	July 8, 1907	190,400	3,396.00	do.....	317.33
Germany.....	do.....	4,636	579.00	do.....	7.73
Do.....	July 16, 1907	88,184	1,680.00	do.....	146.97
Do.....	July 22, 1907	275,251	5,703.00	do.....	458.75
Do.....	July 30, 1907	201,600	3,110.00	do.....	336.00
Do.....	do.....	561,622	9,853.00	do.....	936.04
Do.....	Aug. 13, 1907	135,947	2,198.00	do.....	261.33
Do.....	do.....	569,949	9,530.00	do.....	949.91
Sweden.....	Aug. 20, 1907	112,000	2,024.00	do.....	186.67
Do.....	Aug. 21, 1907	33,600	607.00	do.....	56.00
Germany.....	do.....	362,127	5,749.00	do.....	603.55
Do.....	do.....	268,741	4,623.00	do.....	447.90
Sweden.....	Aug. 22, 1907	112,000	1,790.00	do.....	186.67
Germany.....	Sept. 4, 1907	880,209	14,560.00	do.....	1,467.02
Do.....	Sept. 5, 1907	111,994	1,806.00	do.....	186.66
Do.....	Sept. 10, 1907	88,501	1,851.00	do.....	147.50
Do.....	Sept. 11, 1907	201,589	3,048.00	do.....	335.98
Do.....	Sept. 24, 1907	158,819	2,433.00	do.....	264.70
Do.....	Oct. 5, 1907	589,742	10,828.00	do.....	982.90
Do.....	Oct. 9, 1907	359	8.00	do.....	.60
Do.....	Oct. 11, 1907	32,608	734.00	do.....	54.35
Do.....	Oct. 14, 1907	111,994	1,886.00	do.....	186.66
Sweden.....	Oct. 15, 1907	44,800	677.00	do.....	74.67
Germany.....	Oct. 17, 1907	201,897	3,391.00	do.....	336.50
Sweden.....	Oct. 28, 1907	67,200	1,332.00	do.....	112.00
Germany.....	Oct. 31, 1907	188,149	2,783.00	do.....	313.58
Do.....	Nov. 4, 1907	379,770	5,895.00	do.....	617.95
Do.....	do.....	111,994	1,883.00	do.....	186.66
Sweden.....	Nov. 6, 1907	80,640	1,457.00	do.....	134.40
Do.....	do.....	56,000	744.00	do.....	93.33
Do.....	Nov. 11, 1907	89,000	1,512.00	do.....	149.33
Do.....	do.....	89,000	1,191.00	do.....	149.33
Germany.....	Nov. 14, 1907	1,770	36.00	do.....	2.95
Do.....	Nov. 19, 1907	111,833	2,666.00	do.....	186.47
Norway.....	do.....	56,000	1,049.00	do.....	93.33
Germany.....	Nov. 20, 1907	614,254	10,491.00	do.....	1,023.76
Do.....	Nov. 21, 1907	1,392	25.00	do.....	2.15
Sweden.....	Nov. 22, 1907	44,800	764.00	do.....	74.67
Do.....	do.....	324,800	5,208.00	do.....	541.33
Germany.....	Dec. 5, 1907	463,539	7,878.00	do.....	727.57
Do.....	Dec. 13, 1907	46,032	822.00	do.....	76.72
Do.....	Dec. 16, 1907	1,340,503	22,412.00	do.....	2,234.17
Sweden.....	Dec. 19, 1907	39,427	711.00	do.....	65.71
Germany.....	Dec. 26, 1907	663,479	11,047.00	do.....	1,155.80
Do.....	Dec. 28, 1907	261	9.00	do.....	.43
Do.....	do.....	1,084	30.00	do.....	1.81
Do.....	Jan. 4, 1908	1,324,039	21,375.00	do.....	2,206.73
Do.....	Jan. 8, 1908	286	10.00	do.....	.48
Sweden.....	do.....	40,320	757.00	do.....	67.20
Germany.....	Jan. 20, 1908	107,408	1,879.00	do.....	179.01
Do.....	do.....	223,987	3,772.00	do.....	373.31
Do.....	Jan. 22, 1908	282,493	4,653.00	do.....	470.82

Tabulated statement of wood pulp imported into the port of Baltimore, Md., showing the various kinds, the date of arrival, quantity, appraised value, and country of origin of each importation, together with the duties collected thereon, from January 1, 1907, to June 1, 1908—Continued.

UNBLEACHED CHEMICAL WOOD PULP—Continued.

Country of origin.	Date of arrival.	Quantity.	Appraised value.	Rate of duty.	Duty.
		<i>Pounds.</i>			
Germany.....	Jan. 23, 1908	616	\$25.00	One-sixth of a cent.....	\$1.03
Do.....	Feb. 11, 1908	730,477	11,121.00	do.....	1,217.46
Do.....	do.....	38,902	686.00	do.....	64.67
Russia.....	Feb. 25, 1908	44,961	750.00	do.....	74.94
Sweden.....	do.....	267,372	4,672.00	do.....	445.62
Do.....	Feb. 27, 1908	96,315	1,390.00	do.....	160.53
Germany.....	Mar. 3, 1908	294,490	4,642.00	do.....	460.82
Russia.....	Mar. 4, 1908	221,747	3,739.00	do.....	369.68
Germany.....	Mar. 16, 1908	707,300	11,989.00	do.....	1,173.83
Sweden.....	Mar. 17, 1908	39,687	717.00	do.....	66.15
Russia.....	Mar. 18, 1908	44,320	748.00	do.....	74.70
Germany.....	Apr. 6, 1908	738,676	13,290.00	do.....	1,231.46
Do.....	do.....	56,000	1,022.00	do.....	93.33
Do.....	Apr. 20, 1908	114,460	2,003.00	do.....	190.77
Do.....	do.....	44,300	707.00	do.....	74.67
Do.....	do.....	380,648	6,424.00	do.....	624.41
Norway.....	Apr. 21, 1908	39,683	610.00	do.....	66.16
Sweden.....	do.....	39,936	722.00	do.....	66.56
Do.....	May 4, 1908	138,872	2,066.00	do.....	231.48
Do.....	May 5, 1908	39,489	713.00	do.....	65.82
Do.....	May 19, 1908	44,800	758.00	do.....	74.67
Total.....		18,140,336	310,133.00		30,291.28

* Additional export duty on this entry under paragraph 393, \$5.85.

BLEACHED CHEMICAL WOOD PULP.

		<i>Pounds.</i>			
Russia.....	Jan. 7, 1907	113,693	\$2,596.00	One-fourth of a cent.....	\$284.23
Do.....	Feb. 9, 1907	98,003	2,764.00	do.....	246.61
Germany.....	Mar. 25, 1907	62,242	1,874.00	do.....	155.61
Do.....	May 20, 1907	2,732	351.00	do.....	6.96
Do.....	do.....	62,846	1,736.00	do.....	157.12
Do.....	July 5, 1907	121,243	2,977.00	do.....	303.08
Do.....	July 9, 1907	61,983	1,711.00	do.....	154.96
Do.....	July 22, 1907	61,927	1,648.00	do.....	154.62
Do.....	Aug. 13, 1907	61,259	1,501.00	do.....	153.15
Do.....	do.....	61,905	1,833.00	do.....	154.76
Do.....	Aug. 21, 1907	154,703	3,408.00	do.....	366.91
Do.....	Sept. 10, 1907	111,883	3,042.00	do.....	279.71
Do.....	do.....	118,890	3,580.00	do.....	367.23
Do.....	Oct. 5, 1907	88,735	1,964.00	do.....	221.84
Do.....	Oct. 17, 1907	257,938	5,820.00	do.....	644.88
Do.....	Oct. 31, 1907	266,741	6,238.00	do.....	671.86
Do.....	Nov. 25, 1907	117,433	3,428.00	do.....	293.66
Do.....	Dec. 16, 1907	6,836	851.00	do.....	17.10
Do.....	Jan. 20, 1908	111,883	2,666.00	do.....	279.71
Do.....	Feb. 21, 1908	124,988	2,628.00	do.....	312.47
Do.....	Mar. 16, 1908	119,368	2,706.00	do.....	293.42
Do.....	Mar. 26, 1908	294,114	6,050.00	do.....	736.29
Do.....	Apr. 3, 1908	244,453	6,990.00	do.....	611.13
Do.....	Apr. 20, 1908	61,912	1,771.00	do.....	154.78
Do.....	Apr. 29, 1908	244,292	6,985.00	do.....	610.78
Total.....		3,034,133	77,018.00		7,585.38

No importations of filter masse or filter stock under paragraph 395, nor of printing paper under paragraph 396, nor of pulp woods under paragraph 699, of the tariff act of 1897 during the period from January 1, 1907, to June 1, 1908.

PORT OF PHILADELPHIA, PA.

Statement showing the importations of wood pulp, printing paper, and filter masse into the port of Philadelphia from January 1, 1907, to June 1, 1908, dutiable under paragraph 395 of the tariff act of July 24, 1897.

Country of origin.	Date of arrival.	Quantity.	Appraised value.	Rate of duty.	Duty collected.
		<i>Pounds.</i>			
Germany.....	Jan. 11, 1907	75,901	\$1,308.00	One-sixth of a cent.....	\$126.50
Norway.....	Jan. 12, 1907	195,876	3,426.00	do.....	331.46
Germany.....	Jan. 17, 1907	110,264	1,860.00	do.....	183.77
Do.....	do.....	334,208	5,543.00	do.....	557.01
Sweden.....	do.....	33,600	648.00	do.....	56.00
Do.....	do.....	44,800	852.00	do.....	74.67
Do.....	do.....	33,600	666.00	do.....	56.00
Do.....	do.....	32,823	602.00	do.....	54.71
Germany.....	do.....	371,029	6,763.00	do.....	618.38
Norway.....	Jan. 27, 1907	109,368	2,060.00	do.....	182.28
Sweden.....	Feb. 1, 1907	54,568	1,095.00	do.....	90.95
Germany.....	do.....	104,992	1,805.00	do.....	174.99
Do.....	do.....	338,576	6,284.00	do.....	564.29
Do.....	Feb. 21, 1907	65,567	848.00	do.....	109.28
Sweden.....	do.....	156,041	2,873.00	do.....	260.07
Do.....	do.....	54,933	1,095.00	do.....	91.55
Norway.....	do.....	166,903	2,855.00	do.....	278.17
Do.....	Feb. 23, 1907	111,160	2,088.00	do.....	185.27
Germany.....	Feb. 27, 1907	11,289	216.00	do.....	18.82
Do.....	do.....	87,758	1,653.00	do.....	146.26
Do.....	Mar. 12, 1907	324,157	6,066.00	do.....	540.26
Sweden.....	do.....	153,052	2,875.00	do.....	255.09
Do.....	Mar. 18, 1907	33,600	663.00	do.....	56.00
Germany.....	do.....	152,492	2,863.00	do.....	254.16
Norway.....	Apr. 3, 1907	159,702	2,902.00	do.....	266.17
Germany.....	do.....	231,683	4,325.00	do.....	386.14
Do.....	Apr. 8, 1907	226,281	4,200.00	do.....	377.14
Norway.....	do.....	117,656	2,287.00	do.....	196.09
Do.....	May 1, 1907	47,356	571.00	do.....	78.93
Sweden.....	May 7, 1907	121,811	2,220.00	do.....	203.02
Germany.....	May 8, 1907	22,751	430.00	do.....	37.92
Do.....	May 11, 1907	33,072	682.00	do.....	55.12
Sweden.....	do.....	163,710	2,855.00	do.....	272.85
Germany.....	May 14, 1907	23,322	538.00	do.....	38.87
Do.....	do.....	33,600	547.00	do.....	56.00
England.....	May 22, 1907	225,558	4,096.00	do.....	375.93
Germany.....	do.....	135,072	2,425.00	do.....	225.12
Sweden.....	May 24, 1907	123,200	2,220.00	do.....	205.33
Germany.....	do.....	53,276	1,987.00	do.....	83.79
Sweden.....	June 1, 1907	81,737	620.00	do.....	82.90
Germany.....	do.....	118,966	2,140.00	do.....	189.94
Norway.....	do.....	32,224	547.00	do.....	53.71
Sweden.....	do.....	33,069	682.00	do.....	55.12
Germany.....	do.....	252,660	4,635.00	do.....	421.10
Sweden.....	June 9, 1907	46,417	726.00	do.....	77.36
Norway.....	June 16, 1907	165,288	2,849.00	do.....	275.48
Do.....	June 17, 1907	54,194	1,095.00	do.....	90.32
Sweden.....	do.....	33,445	620.00	do.....	55.74
Germany.....	June 19, 1907	222,905	4,123.00	do.....	371.51
Do.....	June 26, 1907	32,683	547.00	do.....	54.47
Sweden.....	do.....	120,644	3,220.00	do.....	201.07
Do.....	July 1, 1907	44,798	742.00	do.....	74.66
Germany.....	July 8, 1907	1,400	26.00	do.....	2.38
Do.....	July 11, 1907	226,718	3,796.00	do.....	377.86
Sweden.....	do.....	190,400	3,540.00	do.....	317.33
Germany.....	do.....	67,858	1,182.00	do.....	113.10
Sweden.....	Aug. 2, 1907	5,600	1,019.00	do.....	93.34
Germany.....	do.....	111,993	1,777.00	do.....	186.66
Do.....	do.....	65,970	972.00	do.....	109.95
Sweden.....	Aug. 3, 1907	33,069	682.00	do.....	55.12
Do.....	Aug. 5, 1907	113,431	2,187.00	do.....	189.05
England.....	Aug. 7, 1907	107,827	1,399.00	do.....	179.71
Germany.....	Aug. 13, 1907	227,515	3,832.00	do.....	379.19
Do.....	Aug. 14, 1907	44,092	837.00	do.....	73.49
Do.....	do.....	155,846	2,663.00	do.....	259.74
Sweden.....	Aug. 25, 1907	40,662	682.00	do.....	67.77
Do.....	Aug. 27, 1907	123,200	1,943.00	do.....	205.33
Norway.....	Aug. 28, 1907	220,455	3,797.00	do.....	367.43
Germany.....	do.....	224,388	3,785.00	do.....	390.65
Norway.....	Sept. 2, 1907	65,854	1,314.00	do.....	109.76
Germany.....	Sept. 12, 1907	337,573	5,604.00	do.....	562.62
Sweden.....	do.....	33,069	682.00	do.....	55.12
Do.....	do.....	123,200	2,215.00	do.....	205.33
Do.....	Sept. 25, 1907	78,400	1,504.00	do.....	130.67
Norway.....	do.....	53,811	938.00	do.....	89.69
Sweden.....	do.....	33,788	682.00	do.....	56.31

Statement showing the importations of wood pulp, printing paper, and filler masse into the port of Philadelphia from January 1, 1907, to June 1, 1908, dutiable under paragraph 395 of the tariff act of July 24, 1897—Continued.

Country of origin.	Date of arrival.	Quantity.	Appraised value.	Rate of duty.	Duty collected.
		<i>Pounds.</i>			
Germany.....	Oct. 2, 1907	208,761	\$5,268.00	One-sixth of a cent.....	\$497.04
Norway.....	do	82,214	566.00	do	53.00
Do.....	do	531,906	8,350.00	do	896.51
Sweden.....	Oct. 14, 1907	44,800	866.00	do	74.67
Norway.....	do	219,351	3,803.00	do	365.59
Germany.....	do	45,627	676.00	do	76.38
Sweden.....	Oct. 27, 1907	120,446	1,940.00	do	200.74
Germany.....	do	162,667	3,615.00	do	271.11
Sweden.....	Nov. 5, 1907	110,775	2,187.00	do	184.63
Germany.....	Nov. 6, 1907	55,050	1,006.00	do	91.76
Do.....	do	223,923	3,903.00	do	373.21
Sweden.....	do	111,622	1,758.00	do	186.04
Germany.....	Nov. 18, 1907	126,464	2,196.00	do	210.77
Sweden.....	Nov. 18, 1907	120,681	1,924.00	do	201.14
Germany.....	Nov. 18, 1907	126,464	2,196.00	do	210.77
Sweden.....	Nov. 26, 1907	33,089	682.00	do	55.12
Germany.....	do	451,354	9,012.00	do	752.26
Sweden.....	Nov. 27, 1907	56,000	1,063.00	do	93.34
Sweden.....	Nov. 29, 1907	102,025	2,184.00	do	170.04
Germany.....	do	109,844	1,741.00	do	183.07
Do.....	do	110,444	2,129.00	do	184.07
Do.....	Dec. 2, 1907	94,863	1,522.00	do	158.31
Do.....	Dec. 18, 1907	190,706	3,091.00	do	317.84
Do.....	do	177,123	3,007.00	do	295.21
Sweden.....	Dec. 20, 1907	144,508	2,768.00	do	240.85
Do.....	do	181,390	3,242.00	do	302.32
Germany.....	Dec. 23, 1907	221,970	3,826.00	do	369.96
Do.....	Jan. 1, 1908	203,462	3,047.00	do	339.10
Do.....	Jan. 8, 1908	222,570	5,685.00	One-fourth of a cent.....	556.43
Norway.....	Jan. 10, 1908	44,797	744.00	One-sixth of a cent.....	74.66
Sweden.....	do	22,839	516.00	do	38.07
Do.....	do	121,682	1,906.00	do	202.80
Germany.....	do	446,453	7,716.00	do	744.09
Hungary.....	do	345,684	6,875.00	do	576.14
Sweden.....	Jan. 12, 1908	87,704	1,435.00	do	146.17
Norway.....	do	222,084	3,932.00	do	370.14
Germany.....	Jan. 26, 1908	110,593	2,129.00	do	184.32
Norway.....	do	219,432	3,826.00	do	365.72
Germany.....	do	108,343	1,874.00	do	177.24
Do.....	Jan. 27, 1908	122,350	2,445.00	do	203.62
Do.....	Feb. 12, 1908	110,666	1,886.00	do	184.44
Sweden.....	do	44,800	671.00	do	74.67
Norway.....	Feb. 16, 1908	44,797	732.00	do	74.66
Sweden.....	Mar. 3, 1908	89,600	1,514.00	do	149.33
Germany.....	do	110,523	2,129.00	do	184.21
Sweden.....	do	33,089	682.00	do	55.12
Do.....	do	76,521	1,247.00	do	127.54
Germany.....	do	31,733	610.00	do	52.89
Do.....	do	113,780	1,874.00	do	189.63
Norway.....	Mar. 17, 1908	219,235	3,802.00	do	365.29
Sweden.....	do	109,147	2,297.00	do	181.91
Hungary.....	do	342,202	6,874.00	do	570.34
Sweden.....	do	43,372	671.00	do	72.29
Germany.....	Mar. 26, 1908	78,208	1,376.00	do	130.35
Sweden.....	Apr. 10, 1908	88,433	1,421.00	do	147.29
Germany.....	do	111,983	1,922.00	do	186.65
Do.....	Apr. 22, 1908	111,983	1,886.00	do	186.66
Sweden.....	do	123,200	1,945.00	do	205.23
Norway.....	do	112,000	2,129.00	do	186.67
Do.....	do	44,797	732.00	do	74.66
Do.....	Apr. 27, 1908	44,800	762.00	do	74.67
Do.....	do	112,000	1,894.00	do	186.67
Sweden.....	Apr. 30, 1908	134,922	3,393.00	do	224.87
Do.....	May 4, 1908	110,230	2,321.00	do	183.72
Germany.....	do	117,593	1,980.00	do	195.99
Norway.....	do	112,000	2,129.00	do	186.67
Sweden.....	do	100,800	1,591.00	do	168.00
Do.....	do	89,600	1,421.00	do	149.33
Hungary.....	May 13, 1908	354,949	6,844.00	do	591.58
Germany.....	Jan. 4, 1907	54,888	1,677.00	do	137.22
Do.....	Jan. 5, 1907	54,597	1,634.00	One-fourth of a cent.....	136.49
Do.....	Jan. 17, 1907	101,376	2,666.00	do	253.44
Sweden.....	do	133,191	3,393.00	do	332.86
Germany.....	Jan. 24, 1907	110,362	3,299.00	do	275.91
Do.....	Feb. 1, 1907	62,575	1,979.00	do	156.44
Do.....	Feb. 4, 1907	145,906	4,329.00	do	364.77

Statement showing the importations of wood pulp, printing paper, and filter masse into the port of Philadelphia from January 1, 1907, to June 1, 1908, dutiable under paragraph 393 of the tariff act of July 24, 1897—Continued.

Country of origin.	Date of arrival.	Quantity.	Appraised value.	Rate of duty.	Duty collected.
		<i>Pounds.</i>			
Germany.....	Feb. 27, 1907	147, 477	\$3, 676. 00	One-fourth of a cent.....	\$368. 69
Do.....	Mar. 12, 1907	146, 165	3, 676. 00	do.....	365. 41
Norway.....	do.....	167, 188	4, 037. 00	do.....	417. 97
Sweden.....	Apr. 1, 1907	146, 619	3, 676. 00	do.....	366. 55
Do.....	May 3, 1907	166, 734	4, 036. 00	do.....	416. 84
Do.....	May 11, 1907	167, 180	4, 036. 00	do.....	417. 95
Do.....	May 24, 1907	148, 776	3, 676. 00	do.....	371. 94
Norway.....	June 1, 1907	166, 180	4, 036. 00	do.....	416. 45
Sweden.....	June 16, 1907	146, 165	3, 676. 00	do.....	365. 41
Do.....	July 8, 1907	124, 615	3, 110. 00	do.....	311. 54
Do.....	Aug. 25, 1907	168, 652	4, 242. 00	do.....	421. 63
Do.....	Sept. 12, 1907	144, 980	3, 676. 00	do.....	362. 45
Do.....	Oct. 14, 1907	140, 900	3, 676. 00	do.....	352. 00
Norway.....	do.....	164, 901	4, 033. 00	do.....	412. 25
Sweden.....	Nov. 19, 1907	141, 003	3, 676. 00	do.....	352. 51
Norway.....	do.....	165, 152	4, 036. 00	do.....	412. 88
Sweden.....	Nov. 26, 1907	11, 023	264. 00	do.....	27. 56
Norway.....	Dec. 20, 1907	150, 140	3, 713. 00	do.....	375. 35
Do.....	Feb. 6, 1908	222, 010	5, 734. 00	do.....	555. 03
Do.....	Feb. 28, 1908	229, 342	5, 734. 00	do.....	550. 86
Sweden.....	Mar. 16, 1908	129, 152	3, 393. 00	do.....	322. 88
Total.....		22, 126, 163	429, 902. 00		40, 437. 66

PRINTING PAPER.

		<i>Pounds.</i>			
Netherlands.....	Feb. 12, 1907	20, 000	\$1, 111. 00	15 per cent.....	\$166. 65
Do.....	Feb. 20, 1907	7, 000	724. 00	do.....	108. 60
Germany.....	Feb. 21, 1907	548	49. 00	do.....	7. 35
England.....	Mar. 25, 1907	3, 527	829. 00	do.....	124. 35
Do.....	Apr. 2, 1907	14, 763	772. 00	do.....	115. 80
Do.....	Apr. 10, 1907	185	38. 00	do.....	5. 70
Netherlands.....	Apr. 29, 1907	35, 000	2, 083. 00	do.....	312. 45
France.....	May 10, 1907	7, 920	1, 179. 00	do.....	176. 85
Do.....	May 24, 1907	19, 303	2, 725. 00	do.....	408. 78
Netherlands.....	June 3, 1907	29, 006	2, 527. 00	do.....	379. 05
France.....	June 12, 1907	15, 110	796. 00	do.....	119. 40
Netherlands.....	July 14, 1907	10, 000	542. 00	do.....	81. 30
Do.....	July 20, 1907	15, 000	951. 00	do.....	142. 65
England.....	do.....	18	2. 00	do.....	. 30
France.....	July 29, 1907	2, 047	409. 00	do.....	61. 35
England.....	July 30, 1907	-----	419. 00	do.....	62. 85
Netherlands.....	Aug. 3, 1907	10, 000	611. 00	do.....	91. 66
Do.....	Aug. 9, 1907	11, 000	666. 00	do.....	99. 90
France.....	Aug. 25, 1907	17, 316	2, 716. 00	do.....	407. 40
Netherlands.....	Aug. 28, 1907	9, 000	910. 00	do.....	136. 50
England.....	do.....	4, 576	309. 00	do.....	46. 38
Germany.....	Sept. 3, 1907	2, 903	273. 00	do.....	40. 95
Netherlands.....	Sept. 7, 1907	12, 000	1, 242. 00	do.....	186. 30
France.....	Sept. 17, 1907	5, 038	906. 00	do.....	135. 90
Netherlands.....	do.....	4, 600	463. 00	do.....	69. 45
England.....	Sept. 27, 1907	4, 746	1, 087. 00	do.....	163. 05
Netherlands.....	Oct. 16, 1907	6, 600	661. 00	do.....	99. 18
Scotland.....	Oct. 17, 1907	1, 632	397. 00	do.....	59. 58
Netherlands.....	Nov. 15, 1907	5, 420	542. 00	do.....	81. 30
France.....	Dec. 7, 1907	13, 258	2, 297. 00	do.....	344. 55
England.....	Dec. 10, 1907	3, 500	195. 00	do.....	29. 25
Netherlands.....	Feb. 9, 1908	14, 100	1, 410. 00	do.....	211. 50
Do.....	Feb. 16, 1908	15, 646	1, 565. 00	do.....	234. 75
Do.....	Feb. 25, 1908	5, 650	565. 00	do.....	84. 75
Do.....	Mar. 15, 1908	8, 430	843. 00	do.....	126. 45
Belgium.....	Apr. 9, 1908	3, 452	175. 00	do.....	26. 25
Do.....	do.....	4, 695	238. 00	do.....	35. 70
Netherlands.....	May 5, 1908	1, 437	206. 00	do.....	30. 80
Do.....	May 25, 1908	15, 000	932. 00	do.....	139. 80
Belgium.....	June 12, 1907	2, 348	93. 00	Eight-tenths of a cent.....	18. 39
Do.....	Aug. 30, 1907	2, 368	96. 00	do.....	18. 94
Do.....	Dec. 26, 1907	9, 726	419. 00	do.....	77. 46
Do.....	Mar. 23, 1908	2, 567	108. 00	do.....	20. 54
Total.....		376, 434	35, 081. 00		5, 290. 08

Statement showing the importations of wood pulp, printing paper, and filter masse into the port of Philadelphia from January 1, 1907, to June 1, 1908, dutiable under paragraph 393 of the tariff act of July 24, 1897—Continued.

FILTER MASSE.

[Under paragraph 395.]

Country of origin.	Date of arrival.	Quantity.	Appraised value.	Rate of duty.	Duty collected.
		<i>Pounds.</i>			
Germany.....	Mar. 22, 1907	1,102	\$132.00	15 per cent and 1½ cents.....	\$36.33
Do.....	Jan. 7, 1908	1,102	130.00	.....do.....	36.08
Total.....		2,204	262.00		72.36

There were no importations of pulp woods at this port during the period in question.

No additional duties collected during the period from January 1, 1907, to June 1, 1908, on importations under paragraphs 393 or 396 of the tariff act of 1897.

PORT OF NEW YORK, N. Y.

Imports of wood pulp, under paragraph 393, tariff of 1897, at the district and port of New York, from January 1, 1907, to June 1, 1908.

MECHANICALLY GROUND.

Entry No.	Country of origin.	Date.	Quantity.	Appraised value.	Duty collected.
			<i>Pounds.</i>		
100807	Norway.....	Apr. 17, 1907	66,402	\$643.00	\$55.34
119658	New Brunswick.....	May 6, 1907	366,454	2,656.00	305.38
166769	Nova Scotia.....	July 1, 1907	236,382	1,230.00	194.36
185941	Norway.....	July 17, 1907	54,468	566.00	45.39
193418	.....do.....	July 25, 1907	43,235	445.00	36.00
221451	Sweden.....	Aug. 23, 1907	28,876	358.00	24.08
247958	New Brunswick.....	Sept. 20, 1907	791,350	5,454.00	659.46
268385	.....do.....	Oct. 11, 1907	872,702	5,603.00	477.21
268940	Germany.....	Nov. 11, 1907	88,184	580.00	73.40
	Total.....		2,248,063	17,535.00	1,870.78

CHEMICALLY UNBLEACHED.

			<i>Pounds.</i>		
3713	Austria-Hungary.....	Jan. 4, 1907	66,098	\$1,168.00	\$110.16
6233	Germany.....	Jan. 7, 1907	55,246	1,037.00	92.08
9735	Austria-Hungary.....	Jan. 12, 1907	61,698	1,168.00	102.83
13671	Germany.....	Jan. 16, 1907	564,119	10,568.00	940.20
13701	Norway.....	.....do.....	112,919	2,084.00	188.20
15604	Germany.....	Jan. 18, 1907	33,600	654.00	56.00
15690	Sweden.....	.....do.....	56,000	1,090.00	98.33
15623	Germany.....	.....do.....	217,876	4,095.00	363.13
21300	Sweden.....	Jan. 24, 1907	90,710	1,728.00	151.18
21303	.....do.....	Jan. 25, 1907	102,048	1,916.00	170.08
22284	.....do.....	.....do.....	33,600	672.00	56.00
22341	Germany.....	.....do.....	311,619	8,225.00	519.37
22361	Sweden.....	.....do.....	149,724	2,824.00	249.54
23210	.....do.....	Jan. 26, 1907	208,550	3,994.00	347.58
23211	.....do.....	.....do.....	65,746	1,318.00	112.00
23233	Russia.....	Jan. 28, 1907	224,635	3,740.00	374.39
25208	Germany.....	.....do.....	112,333	2,116.00	187.22
26030	.....do.....	Jan. 29, 1907	155,362	2,909.00	258.94
27018	.....do.....	Jan. 30, 1907	81,622	836.00	82.70
29004	Austria-Hungary.....	Feb. 1, 1907	108,138	1,950.00	180.23
30268	Sweden.....	Feb. 2, 1907	67,200	1,318.00	112.00
33047	Germany.....	Feb. 6, 1907	109,474	3,016.00	282.48
33515	Sweden.....	.....do.....	54,745	1,045.00	91.24
36631	Germany.....	Feb. 11, 1907	229,074	4,360.00	381.79
37201	Sweden.....	.....do.....	115,683	1,708.00	152.75

Imports of wood pulp, under paragraph 393, tariff of 1897, at the district and port of New York, from January 1, 1907, to June 1, 1908—Continued.

CHEMICALLY UNBLEACHED—Continued.

Entry No.	Country of origin.	Date.	Quantity.	Appraised value.	Duty collected.
			<i>Pounds.</i>		
38355	Austria-Hungary.....	Feb. 13, 1907	44,800	\$822.00	\$74.67
38582	Germany.....	.....do.....	103,012	1,801.00	173.02
40715	Austria-Hungary.....	Feb. 15, 1907	214,872	4,055.00	358.12
41537	Germany.....	.....do.....	185,515	3,625.00	309.19
41608	Norway.....	.....do.....	113,540	2,068.00	189.23
41290	Russia.....	Feb. 16, 1907	15,640	267.00	26.07
41875	Sweden.....	.....do.....	213,876	4,055.00	356.48
42197	.....do.....	Feb. 18, 1907	122,511	2,108.00	204.19
43855	Germany.....	.....do.....	195,272	3,906.00	325.45
43733	Sweden.....	.....do.....	42,833	811.00	71.39
45919	.....do.....	Feb. 20, 1907	54,766	1,004.00	91.28
47205	Norway.....	Feb. 23, 1907	90,332	1,620.00	150.55
47210	Sweden.....	Feb. 23, 1907	54,785	1,004.00	91.31
51315	.....do.....	Feb. 26, 1907	79,633	1,484.00	132.72
51571	Russia.....	.....do.....	173,189	2,925.00	258.65
58340	Austria-Hungary.....	Mar. 5, 1907	65,275	1,204.00	108.79
58916	Germany.....	Mar. 6, 1907	53,896	903.00	89.83
59069	.....do.....	.....do.....	150,202	4,930.00	375.51
59913	Norway.....	Mar. 7, 1907	317,631	8,075.00	794.08
59939	Sweden.....	.....do.....	56,000	1,040.00	93.33
60367	Norway.....	Mar. 8, 1907	2,033,516	40,403.00	5,083.79
62067	Sweden.....	Mar. 11, 1907	228,083	4,055.00	380.14
64282	.....do.....	Mar. 12, 1907	179,200	3,275.00	298.67
64822	Germany.....	.....do.....	118,594	2,019.00	180.32
67308	Sweden.....	Mar. 15, 1907	262,830	4,839.00	438.05
69519	Austria-Hungary.....	Mar. 18, 1907	108,197	1,958.00	176.96
71574	Germany.....	Mar. 19, 1907	43,900	820.00	73.17
71697	.....do.....	.....do.....	400,191	7,682.00	656.99
71698	.....do.....	.....do.....	105,028	2,116.00	175.05
74530	Norway.....	Mar. 21, 1907	100,800	2,115.00	168.00
77453	Germany.....	Mar. 25, 1907	36,081	833.00	60.14
76680	Sweden.....	.....do.....	224,427	4,055.00	373.33
80088	Germany.....	Mar. 27, 1907	35,916	765.00	59.86
85041	Russia.....	Apr. 1, 1907	30,972	525.00	51.62
87492	Germany.....	Apr. 3, 1907	55,190	1,034.00	91.98
94948	Sweden.....	Apr. 11, 1907	56,000	1,044.00	93.33
95081	Russia.....	Apr. 12, 1907	40,539	743.00	67.57
97599	Sweden.....	Apr. 15, 1907	34,295	654.00	57.16
97573	Norway.....	.....do.....	100,800	2,115.00	168.00
97714	Germany.....	.....do.....	554,482	10,451.00	924.14
98072	.....do.....	.....do.....	144,366	2,635.00	240.61
100533	Sweden.....	Apr. 17, 1907	122,130	2,321.00	203.55
100900	.....do.....	.....do.....	213,943	3,805.00	356.57
100764	England.....	.....do.....	44,800	813.00	74.64
105159	Sweden.....	Apr. 23, 1907	289,730	4,461.00	399.56
105325	Austria-Hungary.....	.....do.....	43,221	797.00	72.04
105906	Norway.....	Apr. 24, 1907	110,210	1,764.00	183.68
106831	Germany.....	.....do.....	336,273	8,874.00	560.46
107055	Sweden.....	.....do.....	218,433	4,056.00	364.06
108169	.....do.....	Apr. 25, 1907	44,107	863.00	73.51
108997	Germany.....	Apr. 27, 1907	313,582	5,852.00	522.64
111836	.....do.....	Apr. 29, 1907	33,508	566.00	56.00
112238	Norway.....	.....do.....	221,554	3,650.00	369.26
114129	Sweden.....	May 2, 1907	65,597	1,241.00	109.39
115434	.....do.....	.....do.....	262,164	4,902.00	420.27
117341	Germany.....	May 4, 1907	71,680	1,520.00	119.47
116800	Sweden.....	May 6, 1907	245,649	4,251.00	409.42
120010	Austria-Hungary.....	May 8, 1907	106,527	1,870.00	180.88
122271	Germany.....	May 9, 1907	248,356	7,137.00	620.89
123144	Norway.....	May 10, 1907	32,980	534.00	54.97
129096	Germany.....	May 14, 1907	55,106	1,031.00	91.84
127094	Russia.....	.....do.....	45,283	717.00	75.47
127176	Germany.....	.....do.....	101,945	2,339.00	169.91
127746	Sweden.....	May 16, 1907	54,488	1,021.00	90.81
128169	Denmark.....	.....do.....	30,939	611.00	51.67
128391	Sweden.....	.....do.....	253,817	4,710.00	423.03
129032	.....do.....	May 17, 1907	190,400	3,391.00	317.33
129346	Norway.....	.....do.....	110,897	1,779.00	184.83
129333	Russia.....	.....do.....	16,019	267.00	26.70
129782	Sweden.....	May 18, 1907	210,377	3,506.00	350.63
129374	.....do.....	May 20, 1907	45,477	818.00	75.80
129182	Denmark.....	May 24, 1907	22,468	345.00	37.44
129740	Sweden.....	May 27, 1907	132,783	2,542.00	221.31
140982	Norway.....	May 29, 1907	183,575	3,418.00	305.96
140154	Sweden.....	.....do.....	35,992	545.00	59.09
140382	Germany.....	May 31, 1907	84,156	1,434.00	140.26
140390	.....do.....	June 4, 1907	32,893	628.00	54.82
140397	.....do.....	June 5, 1907	64,984	1,034.00	93.38

Imports of wood pulp, under paragraph 393, tariff of 1897, at the district and port of New York, from January 1, 1907, to June 1, 1908—Continued.

CHEMICALLY UNBLEACHED—Continued.

Entry No.	Country of origin.	Date.	Quantity.	Appraised value.	Duty collected.
			<i>Pounds.</i>		
146898	Germany.....	June 5, 1907	53,792	\$904.00	\$99.66
147684	Sweden.....	do.	219,940	4,116.00	\$73.33
147682	do.	June 6, 1907	33,600	654.00	86.00
149145	Germany.....	June 7, 1907	353,319	6,815.00	638.99
149262	do.	do.	300,644	5,886.00	901.07
149263	Sweden.....	do.	151,270	2,861.00	263.12
152758	Russia.....	June 12, 1907	54,336	905.00	90.88
153383	Austria-Hungary.....	June 13, 1907	293,345	5,440.00	488.91
153820	England.....	do.	32,340	620.00	53.90
154253	Norway.....	do.	107,882	1,795.00	179.80
154324	Germany.....	do.	242,934	4,264.00	404.89
154407	Sweden.....	do.	227,000	3,556.00	373.33
154541	Norway.....	do.	32,368	651.00	53.94
154701	Sweden.....	June 14, 1907	43,270	826.00	72.11
155382	do.	do.	112,000	2,073.00	186.66
156380	do.	June 17, 1907	220,548	4,060.00	367.68
162324	do.	June 21, 1907	221,646	4,055.00	369.41
162553	Germany.....	June 22, 1907	211,256	4,734.00	352.09
164057	do.	June 24, 1907	463,165	9,785.00	821.94
165563	Netherlands.....	June 25, 1907	107,396	2,449.00	178.99
166188	Sweden.....	June 26, 1907	30,016	620.00	50.03
166210	do.	do.	207,752	3,568.00	346.25
167247	Germany.....	do.	522,090	10,958.00	870.15
166389	Sweden.....	June 27, 1907	294,991	5,304.00	491.65
167275	do.	do.	251,965	4,637.00	463.79
169631	do.	June 29, 1907	101,975	1,855.00	169.96
170143	Russia.....	July 1, 1907	142,440	2,122.00	237.41
170319	Sweden.....	do.	99,071	1,900.00	165.12
170750	Germany.....	do.	263,041	4,075.00	438.40
170967	Sweden.....	do.	183,215	3,586.00	305.36
172157	Austria-Hungary.....	July 2, 1907	661,099	15,630.00	1,652.75
176018	Sweden.....	July 8, 1907	223,341	4,146.00	372.24
178341	England.....	July 9, 1907	33,600	620.00	50.00
178425	Sweden.....	do.	130,675	2,507.00	217.79
178467	do.	do.	112,000	1,793.00	186.67
178579	Germany.....	do.	489,128	7,422.00	815.21
178539	Sweden.....	July 10, 1907	224,922	3,961.00	373.33
179783	Norway.....	do.	112,000	1,892.00	186.67
179761	Germany.....	July 11, 1907	561,595	8,576.00	935.99
180229	Sweden.....	do.	219,245	4,111.00	365.40
181671	do.	July 12, 1907	112,611	1,916.00	187.09
182301	Austria-Hungary.....	July 13, 1907	43,255	588.00	72.09
183605	Russia.....	July 15, 1907	16,061	254.00	26.77
183926	Norway.....	do.	109,777	1,825.00	186.67
183927	do.	do.	106,143	1,795.00	180.24
184506	Germany.....	July 16, 1907	490,252	7,885.00	800.42
184573	Norway.....	do.	53,600	965.00	89.32
184700	Germany.....	do.	108,750	1,883.00	181.25
184844	Sweden.....	do.	110,159	1,857.00	183.60
184861	Norway.....	do.	109,445	1,825.00	186.67
185379	Germany.....	July 17, 1907	65,310	1,034.00	92.18
185486	Russia.....	do.	59,495	1,121.00	99.14
187260	Austria-Hungary.....	July 19, 1907	172,514	3,407.00	287.59
187410	Norway.....	do.	224,000	3,699.00	373.33
188908	Sweden.....	July 20, 1907	112,000	1,894.00	186.67
189475	do.	do.	395,362	6,822.00	658.94
190054	Germany.....	July 22, 1907	289,911	4,408.00	499.77
192024	Russia.....	July 24, 1907	153,608	2,915.00	256.01
192283	Sweden.....	do.	112,748	1,806.00	187.91
192682	Russia.....	July 25, 1907	4,253	83.00	7.06
193071	Sweden.....	do.	22,400	389.00	37.33
193637	Norway.....	do.	336,000	5,475.00	590.00
193952	do.	do.	109,881	1,828.00	183.14
194174	Sweden.....	do.	66,000	942.00	92.33
194415	do.	do.	146,244	2,433.00	243.74
194513	do.	do.	206,411	3,489.00	344.02
194657	do.	do.	21,758	405.00	36.26
195182	Germany.....	July 26, 1907	1,171,494	20,231.00	1,962.46
195407	Sweden.....	do.	122,368	2,338.00	220.61
201622	do.	Aug. 3, 1907	120,138	2,063.00	200.23
201667	Germany.....	do.	100,770	2,064.00	167.96
201916	Sweden.....	do.	200,296	3,715.00	373.33
203421	do.	Aug. 5, 1907	109,890	1,933.00	183.10
203423	Germany.....	do.	111,141	3,164.00	185.24
205905	do.	Aug. 7, 1907	58,328	1,034.00	88.88
205926	Norway.....	do.	66,000	1,064.00	92.33
205995	Sweden.....	do.	42,162	883.00	70.27
206339	do.	do.	33,600	607.00	56.00

Imports of wood pulp, under paragraph 393, tariff of 1897, at the district and port of New York, from January 1, 1907, to June 1, 1908—Continued.

CHEMICALLY UNBLEACHED—Continued.

Entry No.	Country of origin.	Date.	Quantity.	Appraised value.	Duty collected.
			<i>Pounds.</i>		
206827	Norway.....	Aug. 7, 1907	448,832	\$7,981.00	\$748.08
206861	Russia.....	.....do.....	44,802	981.00	112.01
206890	Norway.....	Aug. 8, 1907	40,938	882.00	68.28
206908	Sweden.....	Aug. 9, 1907	234,980	3,455.00	374.97
206987	.....do.....	Aug. 10, 1907	235,803	4,171.00	381.34
212481	England.....	Aug. 14, 1907	86,598	1,205.00	144.31
215180	Germany.....	Aug. 17, 1907	222,951	3,806.00	371.59
215300	Sweden.....	Aug. 19, 1907	44,800	753.00	74.67
215304	.....do.....	.....do.....	84,618	1,471.00	140.33
215560	.....do.....	.....do.....	232,917	4,077.00	388.20
216988	Germany.....	.....do.....	790,387	12,883.00	1,317.31
217856	.....do.....	Aug. 20, 1907	21,181	457.00	35.30
217865	Russia.....	.....do.....	52,517	1,008.00	87.53
218090	Sweden.....	.....do.....	190,400	3,391.00	317.33
218946	Norway.....	Aug. 21, 1907	228,280	3,650.00	377.30
222164	Germany.....	Aug. 23, 1907	90,088	2,363.00	165.11
222574	Sweden.....	Aug. 26, 1907	63,325	1,124.00	105.54
222716	.....do.....	.....do.....	429,890	7,222.00	716.43
223141	.....do.....	.....do.....	53,087	959.00	88.45
223142	.....do.....	.....do.....	101,080	1,890.00	180.10
223244	.....do.....	.....do.....	197,434	3,746.00	329.08
223287	.....do.....	.....do.....	187,681	3,297.00	312.64
224904	.....do.....	Aug. 27, 1907	67,711	1,020.00	112.85
225035	Norway.....	.....do.....	34,333	577.00	56.10
226087	.....do.....	.....do.....	262,666	6,566.00	421.11
226527	.....do.....	Aug. 28, 1907	454,440	7,300.00	757.40
226267	Sweden.....	.....do.....	224,000	3,401.00	373.33
226978	Germany.....	.....do.....	211,316	3,810.00	352.19
227109	Austria-Hungary.....	Aug. 29, 1907	198,131	3,825.00	330.22
227273	Germany.....	.....do.....	776,294	12,763.00	1,293.82
228622	Sweden.....	.....do.....	268,212	4,674.00	447.02
228740	Russia.....	Aug. 31, 1907	16,298	2,507.00	257.16
230654	Germany.....	Sept. 3, 1907	65,827	1,101.00	109.71
230655	.....do.....	.....do.....	40,815	924.00	68.08
231338	Norway.....	.....do.....	224,000	3,991.00	373.33
232055	Sweden.....	Sept. 4, 1907	56,000	947.00	93.33
232315	Germany.....	.....do.....	53,517	1,034.00	98.20
233217	.....do.....	Sept. 5, 1907	218,277	3,866.00	363.80
233370	Sweden.....	.....do.....	115,321	2,063.00	192.20
233817	Germany.....	.....do.....	522,875	9,062.00	871.46
233997	Sweden.....	Sept. 6, 1907	66,184	1,294.00	113.64
234019	.....do.....	.....do.....	230,370	4,171.00	383.95
234262	.....do.....	.....do.....	67,196	1,113.00	111.99
234639	.....do.....	.....do.....	64,368	1,740.00	168.55
234921	.....do.....	Sept. 7, 1907	33,600	615.00	56.00
237534	Germany.....	Sept. 10, 1907	110,577	2,353.00	184.30
239739	England.....	Sept. 12, 1907	55,214	641.00	92.02
239823	Germany.....	.....do.....	221,535	3,496.00	369.23
243243	.....do.....	Sept. 16, 1907	120,018	2,921.00	200.08
244701	Sweden.....	Sept. 18, 1907	112,000	1,693.00	186.67
245214	.....do.....	.....do.....	266,376	4,684.00	443.96
245436	.....do.....	.....do.....	251,339	3,954.00	418.90
245867	Germany.....	.....do.....	233,510	4,886.00	389.18
247386	.....do.....	Sept. 19, 1907	133,261	2,463.00	221.16
247388	.....do.....	.....do.....	182,031	2,974.00	303.39
251000	.....do.....	Sept. 24, 1907	21,813	511.00	30.36
252682	Sweden.....	Sept. 25, 1907	263,157	4,650.00	438.00
253969	.....do.....	Sept. 26, 1907	84,036	1,535.00	140.06
254275	.....do.....	Sept. 27, 1907	44,446	754.00	74.66
254467	.....do.....	.....do.....	52,850	1,018.00	88.08
254814	.....do.....	.....do.....	45,637	864.00	76.06
256181	.....do.....	Sept. 30, 1907	223,061	3,906.00	371.77
257828	.....do.....	Oct. 1, 1907	110,372	2,002.00	183.95
257896	Norway.....	.....do.....	225,627	3,650.00	376.05
257933	Germany.....	.....do.....	54,764	1,034.00	91.27
258427	Norway.....	.....do.....	433,571	7,300.00	722.62
259076	Germany.....	Oct. 2, 1907	202,446	4,402.00	337.41
259307	.....do.....	.....do.....	108,900	2,649.00	181.50
259458	Austria-Hungary.....	.....do.....	212,199	3,683.00	353.67
259943	Germany.....	Oct. 4, 1907	210,999	3,840.00	351.67
261549	.....do.....	.....do.....	162,571	2,554.00	270.95
261666	Sweden.....	.....do.....	126,973	2,320.00	211.62
261882	Gothenburg, Sweden.....	.....do.....	246,400	4,099.00	410.67
262273	Sweden.....	Oct. 5, 1907	39,980	764.00	66.60
262514	.....do.....	Oct. 9, 1907	166,087	2,826.00	276.81
262647	Norway.....	Oct. 10, 1907	425,363	7,451.00	708.94
267004	.....do.....	.....do.....	1,120	19.00	1.87
267899	Germany.....	.....do.....	131,889	3,301.00	329.72

Imports of wood pulp, under paragraph 393, tariff of 1897, at the district and port of New York, from January 1, 1907, to June 1, 1908—Continued.

CHEMICALLY UNBLEACHED—Continued.

Entry No.	Country of origin.	Date.	Quantity.	Appraised value.	Duty collected
			<i>Pounds.</i>		
267568	Sweden.....	Oct. 11, 1907	111,326	\$1,693.00	\$186.55
272420	Germany.....	Oct. 15, 1907	28,557	877.00	71.29
272992	Sweden.....	Oct. 16, 1907	185,609	2,933.00	309.25
273797	Norway.....	do.	448,000	7,300.00	746.67
274521	do.	Oct. 17, 1907	171,228	2,816.00	285.28
274635	Germany.....	do.	69,217	1,056.00	115.26
278652	do.	Oct. 21, 1907	48,248	1,040.00	80.47
282715	Sweden.....	Oct. 26, 1907	86,390	1,525.00	143.98
282848	do.	do.	105,495	1,857.00	175.53
283466	Germany.....	do.	259,688	4,190.00	432.81
284426	do.	Oct. 28, 1907	106,201	1,913.00	177.00
286281	do.	Oct. 29, 1907	81,396	1,306.00	135.06
286360	do.	Oct. 30, 1907	193,757	4,104.00	322.68
288428	Norway.....	do.	502,453	9,066.00	837.43
287371	Sweden.....	do.	43,467	740.00	72.45
287838	Norway.....	Oct. 31, 1907	165,237	3,264.00	275.26
291203	Sweden.....	Nov. 4, 1907	239,989	4,443.00	399.95
291812	Germany.....	do.	82,594	1,294.00	157.66
295187	do.	Nov. 7, 1907	621,530	12,010.00	1,035.88
295929	Austria-Hungary.....	Nov. 8, 1907	186,562	3,479.00	310.94
296671	Sweden.....	Nov. 9, 1907	44,797	879.00	74.66
297955	Russia.....	do.	156,002	2,646.00	260.00
297971	Sweden.....	Nov. 11, 1907	109,475	2,002.00	182.46
298823	Germany.....	do.	52,794	1,068.00	87.99
298841	Sweden.....	do.	280,000	4,558.00	466.67
300379	do.	Nov. 12, 1907	243,382	4,425.00	406.64
300427	do.	Nov. 13, 1907	110,503	1,943.00	184.17
300809	do.	do.	82,881	1,528.00	138.14
301093	do.	do.	425,678	7,300.00	709.45
303097	do.	Nov. 15, 1907	134,400	2,338.00	224.00
303481	do.	do.	224,996	3,455.00	374.99
304536	Germany.....	do.	248,809	8,731.00	414.68
307020	England.....	Nov. 19, 1907	32,880	614.00	54.80
309006	Sweden.....	Nov. 21, 1907	166,879	2,803.00	278.13
309457	Norway.....	do.	414,400	7,382.00	690.67
309502	Germany.....	do.	186,530	3,594.00	310.05
310406	do.	Nov. 23, 1907	44,798	963.00	74.66
311721	Sweden.....	Nov. 25, 1907	85,256	1,535.00	142.09
312722	Norway.....	Nov. 26, 1907	209,779	3,396.00	346.63
312757	Russia.....	do.	16,497	1,493.00	37.60
313953	Germany.....	do.	154	3.00	.26
313966	Sweden.....	do.	106,766	1,856.00	177.94
314651	do.	do.	106,874	1,856.00	178.13
315432	do.	Nov. 27, 1907	38,166	690.00	63.61
316983	Germany.....	do.	41,861	842.00	69.77
317175	Norway.....	do.	198,322	3,328.00	330.54
317194	Sweden.....	Nov. 29, 1907	321,850	5,736.00	536.42
317196	do.	do.	185,344	3,096.00	308.91
317542	Germany.....	do.	596,539	9,678.00	994.23
317550	Sweden.....	do.	225,800	3,455.00	376.33
319365	do.	Dec. 2, 1907	273,452	4,622.00	455.75
319815	Austria-Hungary.....	do.	31,379	443.00	32.30
324128	Sweden.....	Dec. 7, 1907	52,384	931.00	87.21
324712	do.	do.	102,003	2,150.00	170.01
325193	Germany.....	do.	194,373	4,446.00	423.96
326173	Sweden.....	do.	1,108,014	18,042.00	1,846.69
326682	do.	do.	61,800	1,160.00	103.00
325254	do.	Dec. 9, 1907	270,356	4,639.00	450.69
325538	Russia.....	do.	16,192	261.00	26.99
326767	Sweden.....	Dec. 11, 1907	107,899	1,692.00	179.53
328711	do.	do.	237,040	3,940.00	395.07
328940	do.	do.	105,288	2,002.00	175.48
328994	Germany.....	do.	388	6.00	.64
329643	Norway.....	Dec. 13, 1907	440,242	7,786.00	733.74
329736	Germany.....	do.	314,538	6,137.00	534.23
332058	do.	Dec. 16, 1907	829,760	8,269.00	846.60
332213	Sweden.....	do.	63,817	1,221.00	106.86
332877	do.	do.	217,800	3,455.00	363.00
333754	do.	Dec. 17, 1907	69,908	1,294.00	116.61
334001	do.	do.	133,518	2,388.00	222.63
337785	do.	Dec. 21, 1907	109,948	1,794.00	183.25
338246	do.	do.	124,237	2,423.00	207.06
339469	do.	Dec. 23, 1907	211,369	3,715.00	352.28
340196	Germany.....	do.	54,279	846.00	90.47
342291	Sweden.....	Dec. 26, 1907	55,000	924.00	93.23
342392	do.	do.	169,664	2,963.00	292.77
342413	do.	Dec. 27, 1907	189,025	3,361.00	316.94

Imports of wood pulp, under paragraph 593, tariff of 1897, at the district and port of New York, from January 1, 1907, to June 1, 1908—Continued.

CHEMICALLY UNBLEACHED—Continued.

Entry No.	Country of origin.	Date.	Quantity.	Appraised value.	Duty collected.
			<i>Pounds.</i>		
342312	Germany	Dec. 27, 1907	287,998	\$6,850.00	\$648.64
345335	do.	Dec. 30, 1907	617	24.00	1.08
345335	Sweden	do.	119,045	2,110.00	198.41
345356	Russia	do.	16,104	267.00	26.84
347037	Germany	do.	422,051	6,308.00	703.42
4388	Sweden	Jan. 8, 1908	174,410	4,032.00	390.68
4339	Germany	do.	134,392	2,104.00	223.99
4729	Sweden	do.	216,647	3,465.00	351.08
7983	do.	Jan. 9, 1908	29,009	645.00	46.35
11483	do.	Jan. 14, 1908	326,162	5,680.00	543.60
11698	Germany	do.	42,518	1,024.00	87.53
12387	Sweden	Jan. 15, 1908	101,444	1,918.00	169.07
12210	Germany	do.	418,672	9,228.00	607.79
12611	do.	Jan. 17, 1908	31,059	556.00	51.77
12660	Sweden	Jan. 24, 1908	238,604	3,801.00	397.67
19073	Norway	do.	110,722	1,830.00	184.54
19796	Sweden	Jan. 25, 1908	56,000	974.00	93.33
19797	do.	do.	213,229	3,715.00	355.38
19800	Russia	do.	19,060	273.00	31.77
20034	Sweden	Jan. 27, 1908	55,147	927.00	93.33
20097	do.	do.	28,437	645.00	47.40
22983	do.	Jan. 28, 1908	62,970	1,141.00	104.96
24400	do.	Jan. 30, 1908	43,925	707.00	73.21
24542a	do.	Jan. 31, 1908	112,000	2,002.00	186.67
25042	Russia	do.	106,562	2,041.00	177.60
24981	Sweden	do.	93,092	1,692.00	155.15
26260	Norway	do.	42,835	752.00	71.39
25306	Sweden	do.	79,430	1,486.00	132.38
25560	Norway	do.	54,523	919.00	90.87
25680	Germany	do.	210,523	4,203.00	350.87
26965	do.	Feb. 1, 1908	285,747	4,028.00	476.25
26448	Sweden	do.	108,557	1,913.00	180.93
27043	do.	Feb. 3, 1908	22,399	389.00	37.33
27282	Norway	do.	110,842	1,795.00	184.74
30080	Sweden	Feb. 7, 1908	46,880	802.00	117.15
32132	do.	Feb. 8, 1908	23,128	398.00	38.56
32731	Germany	Feb. 10, 1908	269,068	4,899.00	448.46
33157	do.	Feb. 17, 1908	36,778	721.00	61.30
33978	Sweden	do.	53,008	973.00	88.36
33937	Norway	do.	56,651	1,006.00	94.42
33999	Sweden	do.	554,021	9,533.00	923.34
33714	do.	do.	33,069	682.00	56.12
33390	Russia	Feb. 18, 1908	56,391	958.00	93.99
30073	Germany	do.	1,009,819	19,754.00	1,683.03
39411	Norway	do.	107,903	1,913.00	179.84
39539	Sweden	do.	34,670	591.00	57.78
43420	do.	Feb. 24, 1908	110,758	1,951.00	184.60
43624	do.	do.	105,546	1,888.00	175.91
44218	Germany	do.	238,225	4,008.00	397.04
44509	Sweden	Feb. 25, 1908	52,860	1,075.00	88.10
44902	Austria-Hungary	do.	83,689	1,523.00	139.46
46812	Russia	Feb. 27, 1908	105,737	1,834.00	176.23
46963	Sweden	do.	112,000	2,002.00	186.67
47067	do.	do.	56,000	884.00	93.33
47218	Germany	do.	207,115	4,078.00	345.19
47230	Sweden	do.	55,201	924.00	92.00
48564	Germany	Mar. 2, 1908	43,489	990.00	72.50
50120	Sweden	do.	107,464	1,949.00	179.11
52680	Germany	Mar. 3, 1908	54,268	816.00	90.45
53063	Sweden	Mar. 5, 1908	108,458	2,002.00	180.76
53086	Norway	do.	44,333	831.00	73.89
53390	Sweden	Mar. 6, 1908	324,639	5,329.00	541.07
53902	do.	do.	2,560	43.00	4.27
54757	do.	Mar. 7, 1908	56,620	1,019.00	94.37
54873	do.	do.	78,398	1,237.00	130.66
57105	do.	Mar. 12, 1908	98,265	1,635.00	163.78
58062	Germany	do.	111,303	2,105.00	185.51
60729	Sweden	Mar. 14, 1908	56,000	939.00	93.33
61087	Russia	do.	55,661	923.00	92.77
61520	Germany	Mar. 16, 1908	559,278	8,101.00	932.13
62322	Sweden	Mar. 23, 1908	461,757	7,803.00	769.59
67706	do.	Mar. 24, 1908	108,333	2,023.00	180.56
71989	do.	Mar. 28, 1908	166,051	3,144.00	276.75
71411	Norway	Mar. 30, 1908	44,167	886.00	73.61
72153	Germany	do.	53,448	810.00	89.08

* As entered; entry not liquidated.

Imports of wood pulp, under paragraph 593, tariff of 1897, at the district and port of New York, from January 1, 1907, to June 1, 1908—Continued.

CHEMICALLY UNBLEACHED—Continued.

Entry No.	Country of origin.	Date.	Quantity.	Appraised value.	Duty collected.
			<i>Pounds.</i>		
72177	Sweden	Mar. 30, 1908	158,795	\$2,711.00	\$391.23
72179	do.	do.	56,000	1,019.00	82.23
72709	do.	do.	96,456	1,711.00	160.76
77576	do.	Apr. 6, 1908	44,900	738.00	74.67
78953	Germany	Apr. 8, 1908	158,930	2,990.00	264.88
79269	Sweden	do.	108,621	1,888.00	178.04
80038	do.	do.	52,629	836.00	86.23
79130	Austria-Hungary	do.	43,744	778.00	72.81
80271	Germany	Apr. 9, 1908	108,227	2,112.00	177.04
80748	Norway	do.	96,738	1,792.00	166.26
83559	Germany	Apr. 14, 1908	268,409	4,813.00	444.03
48858	Sweden	do.	20,867	643.00	51.48
86151	Germany	Apr. 17, 1908	167,991	2,563.00	279.99
86990	Sweden	do.	113,627	1,917.00	189.88
86641	do.	Apr. 18, 1908	308,221	\$,370.00	\$42.04
87201	do.	do.	56,345	936.00	88.31
88928	do.	Apr. 21, 1908	56,700	907.00	94.50
90006	Russia	Apr. 22, 1908	109,783	1,636.00	182.97
90170	Sweden	do.	220,621	\$,686.00	\$67.70
90247	Sweden	do.	54,891	970.00	91.49
90507	Germany	Apr. 23, 1908	318,163	6,391.00	530.27
112230	do.	do.	262,756	\$,378.00	\$41.26
91561	Austria-Hungary	do.	29,836	753.00	66.56
91511	Germany	Apr. 24, 1908	264,228	4,781.00	442.06
91901	Russia	Apr. 25, 1908	88,621	1,483.00	147.54
92928	Sweden	Apr. 27, 1908	618,065	10,621.00	1,030.09
92824	do.	do.	43,703	723.00	72.84
93433	Germany	do.	113,176	1,644.00	186.63
96884	do.	May 1, 1908	11,200	168.00	13.67
97599	Sweden	May 2, 1908	80,743	1,362.00	101.24
99132	do.	May 6, 1908	113,009	2,060.00	186.36
100490	Austria-Hungary	May 7, 1908	61,338	1,032.00	102.28
102583	Germany	May 11, 1908	461,564	6,967.00	694.27
105506	Norway	May 14, 1908	125,255	2,349.00	206.76
105971	Sweden	May 16, 1908	111,162	2,068.00	183.27
105972	do.	do.	56,000	1,019.00	82.23
106719	do.	do.	44,800	756.00	74.67
108133	do.	May 18, 1908	112,000	1,896.00	186.67
108618	do.	do.	56,000	972.00	88.23
109942	Norway	May 20, 1908	49,020	1,148.00	122.55
110327	Germany	do.	276,675	4,817.00	469.29
113145	Sweden	May 25, 1908	109,896	1,918.00	182.65
113763	Germany	May 26, 1908	41,888	666.00	69.81
115578	do.	May 28, 1908	219,526	\$,332.00	\$66.36
115683	Sweden	do.	1,138,860	19,314.00	1,896.10
116184	do.	May 29, 1908	44,800	776.00	74.67
	Total		76,667,720	1,374,540.00	129,784.28

CHEMICALLY BLEACHED.

			<i>Pounds.</i>		
7359	Russia	Jan. 8, 1907	42,009	\$977.00	\$105.25
8376	Germany	Jan. 9, 1907	194,494	5,206.00	496.24
10725	Austria-Hungary	Jan. 14, 1907	841,144	18,699.00	2,102.86
13395	Germany	Jan. 16, 1907	126,703	3,125.00	316.76
18907	do.	Jan. 22, 1907	312,946	8,087.00	782.36
20299	Norway	Jan. 24, 1907	664,715	16,412.00	1,661.79
20431	do.	do.	33,563	785.00	83.91
20533	Germany	do.	127,029	3,281.00	317.57
21031	Norway	do.	428,470	10,699.00	1,071.18
21951	do.	Jan. 25, 1907	344,688	8,065.00	861.72
22117	do.	do.	976,572	23,343.00	2,439.68
22358	Netherlands	do.	44,736	1,119.00	111.46
23008	Norway	Jan. 26, 1907	67,086	1,557.00	167.72
24296	Austria-Hungary	Jan. 28, 1907	1,155,982	24,875.00	2,839.96
25233	Russia	do.	214,675	4,937.00	536.69
27013	Germany	Jan. 30, 1907	292,998	7,681.00	732.80
30216	do.	Feb. 2, 1907	86,302	2,370.00	215.76
30232	Russia	do.	86,079	2,062.00	215.20
32850	Norway	Feb. 6, 1907	312,920	8,675.00	782.30
33408	do.	Feb. 7, 1907	33,559	779.00	83.90
33517	do.	do.	1,141,413	26,040.00	2,853.35
36054	Russia	Feb. 11, 1907	106,024	2,549.00	265.06
37245	Netherlands	Feb. 13, 1907	21,248	581.00	58.12

Imports of wood pulp, under paragraph 593, tariff of 1897, at the district and port of New York, from January 1, 1907, to June 1, 1908—Continued.

CHEMICALLY BLEACHED—Continued.

Entry No.	Country of origin.	Date.	Quantity.	Appraised value.	Duty collected.
<i>Pounds.</i>					
41290	Russia.....	Feb. 16, 1907	67,822	\$1,516.00	\$169.56
46579	Norway.....	Feb. 20, 1907	1,028,853	24,708.00	2,572.13
46882	do.....	Feb. 21, 1907	886,418	9,063.00	966.06
47370	Austria-Hungary.....	Feb. 23, 1907	221,922	4,959.00	554.80
51571	Russia.....	Feb. 26, 1907	42,842	1,025.00	107.11
52136	Germany.....	Feb. 27, 1907	668,796	15,823.00	1,421.99
53102	do.....	Feb. 28, 1907	189,899	5,504.00	473.47
53746	Netherlands.....	Mar. 1, 1907	22,616	562.00	56.29
55925	Austria-Hungary.....	Mar. 4, 1907	810,720	6,728.00	776.80
61249	do.....	Mar. 9, 1907	206,772	4,809.00	514.43
66482	Norway.....	Mar. 15, 1907	839,730	8,075.00	849.33
67646	do.....	do.....	435,969	10,812.00	1,069.92
72159	Germany.....	Mar. 20, 1907	211,256	5,702.00	528.14
73264	do.....	do.....	41,659	1,116.00	104.15
75126	Norway.....	Mar. 21, 1907	923,066	22,296.00	2,307.67
76679	Austria-Hungary.....	Mar. 23, 1907	84,976	2,034.00	212.44
77453	Germany.....	Mar. 25, 1907	176,401	5,509.00	441.00
80068	do.....	Mar. 27, 1907	205,570	5,495.00	514.68
80616	do.....	do.....	33,854	1,058.00	84.64
81010	Netherlands.....	Mar. 28, 1907	21,856	585.00	54.64
84691	Germany.....	Apr. 1, 1907	155,496	3,913.00	358.74
85041	Russia.....	do.....	176,744	4,082.00	441.86
86139	Austria-Hungary.....	Apr. 2, 1907	452,106	10,045.00	1,130.27
86143	do.....	do.....	64,507	1,527.00	161.27
87133	Germany.....	Apr. 3, 1907	29,229	851.00	73.15
87319	Norway.....	do.....	242,720	8,075.00	856.80
87399	Germany.....	do.....	6,977	189.00	17.44
88141	Norway.....	Apr. 4, 1907	1,810,598	33,044.00	3,276.50
96081	Germany.....	Apr. 12, 1907	402,066	10,391.00	1,005.14
97716	do.....	Apr. 15, 1907	90,544	2,702.00	226.36
98111	Russia.....	Apr. 16, 1907	90,693	2,042.00	226.71
98483	Germany.....	do.....	198,960	5,351.00	497.40
99015	do.....	do.....	306,033	8,003.00	765.08
100031	Norway.....	Apr. 17, 1907	419,297	10,081.00	1,048.24
100822	Austria-Hungary.....	do.....	638,282	14,067.00	1,566.70
101836	do.....	do.....	21,165	495.00	52.91
106011	Germany.....	Apr. 24, 1907	124,402	3,779.00	311.01
107081	Netherlands.....	Apr. 25, 1907	15,307	407.00	38.27
108975	Norway.....	Apr. 26, 1907	967,023	24,307.00	2,417.56
112579	Germany.....	May 1, 1907	216,100	4,503.00	504.25
114450	Norway.....	do.....	432,420	10,081.00	1,061.06
115671	do.....	May 2, 1907	866,180	20,552.00	2,165.45
119512	Germany.....	May 7, 1907	205,104	5,265.00	512.76
120747	Netherlands.....	May 8, 1907	33,200	813.00	83.00
123183	Austria-Hungary.....	May 9, 1907	499,632	11,747.00	1,249.08
126582	Germany.....	May 14, 1907	201,740	5,292.00	504.35
127649	Norway.....	May 15, 1907	829,149	8,075.00	822.87
128065	Netherlands.....	do.....	18,966	550.00	47.42
128628	Norway.....	do.....	198,026	4,974.00	495.07
129853	Russia.....	May 17, 1907	135,546	3,063.00	338.87
129846	Austria-Hungary.....	do.....	21,612	566.00	54.03
129828	Germany.....	May 22, 1907	209,494	5,267.00	523.74
129846	Dresden, Germany.....	do.....	134,968	3,372.00	337.42
129818	Norway.....	May 28, 1907	371,542	8,871.00	928.86
141507	do.....	May 31, 1907	11,200	262.00	28.00
142867	Russia.....	June 1, 1907	22,000	510.00	55.00
143696	Austria-Hungary.....	June 3, 1907	464,475	11,840.00	1,161.19
146930	Germany.....	June 4, 1907	213,147	6,128.00	532.87
146509	Norway.....	June 5, 1907	285,544	7,149.00	713.86
146908	Germany.....	do.....	242,982	6,249.00	607.46
152715	Norway.....	June 12, 1907	616,201	16,126.00	1,538.00
152758	Russia.....	do.....	208,668	5,206.00	528.42
156983	Germany.....	June 14, 1907	127,826	3,243.00	319.56
156905	Russia.....	June 17, 1907	106,633	2,582.00	264.06
156959	Netherlands.....	June 18, 1907	21,773	532.00	54.43
162239	Russia.....	June 22, 1907	107,323	2,591.00	268.31
162613	Austria-Hungary.....	do.....	54,543	1,297.00	136.36
166945	Germany.....	June 27, 1907	816,545	13,370.00	1,291.36
167012	Norway.....	do.....	109,116	2,561.00	272.79
168206	Germany.....	June 28, 1907	478	8.00	1.20
170143	Russia.....	July 1, 1907	142,444	6,490.00	726.51
172226	Germany.....	July 5, 1907	258,418	5,462.00	646.06
172998	Russia.....	July 9, 1907	210,888	5,171.00	527.22
172157	Austria-Hungary.....	July 11, 1907	661,099	15,630.00	1,652.75
180905	Russia.....	July 16, 1907	113,900	2,612.00	248.75
184958	Netherlands.....	July 16, 1907	34,692	908.00	86.73
185611	Germany.....	do.....	41,236	1,239.00	103.09
185486	do.....	July 17, 1907	667,394	17,779.00	1,668.49

Imports of wood pulp, under paragraph 393, tariff of 1897, at the district and port of New York, from January 1, 1907, to June 1, 1908—Continued.

CHEMICALLY BLEACHED—Continued.

Entry No.	Country of origin.	Date.	Quantity.	Appraised value.	Duty collected.
			Pounds.		
186390	Austria-Hungary.....	July 17, 1907	501,807	\$15,039.00	\$1,479.53
186476	do.....	July 22, 1907	199,333	4,273.00	408.31
192024	Germany.....	July 24, 1907	460,686	11,818.08	1,151.74
192682	Russia.....	July 25, 1907	27,149	735.00	67.87
194513	Sweden.....	do.....	128,007	2,249.00	220.02
194796	Netherlands.....	July 26, 1907	28,265	765.00	70.68
197883	Germany.....	July 30, 1907	239,520	6,246.00	606.80
199029	do.....	July 31, 1907	20,916	597.00	52.29
204706	do.....	Aug. 6, 1907	219,679	7,796.00	729.20
210668	do.....	Aug. 13, 1907	199,260	5,843.00	496.15
215130	do.....	Aug. 17, 1907	130,913	3,287.00	327.26
217856	do.....	Aug. 20, 1907	319,104	8,189.00	797.76
217865	Russia.....	do.....	343,536	9,207.00	858.84
218096	Austria-Hungary.....	do.....	921,152	21,301.00	2,202.88
218463	Germany.....	do.....	39,639	1,236.00	112.05
218751	do.....	do.....	13,506	372.00	33.77
224910	Austria-Hungary.....	Aug. 27, 1907	82,957	1,319.00	122.29
227789	Germany.....	Aug. 29, 1907	126,850	3,301.00	317.13
231417	Austria-Hungary.....	Sept. 4, 1907	45,646	1,079.00	114.13
237267	Germany.....	Sept. 10, 1907	102,729	2,631.00	256.83
237535	do.....	do.....	67,569	2,150.00	168.92
243176	Austria-Hungary.....	Sept. 16, 1907	638,616	16,700.00	1,596.44
244887	Germany.....	Sept. 17, 1907	117,434	3,069.00	293.59
245168	Norway.....	Sept. 18, 1907	447,568	10,472.00	1,118.92
249072	England.....	Sept. 21, 1907	44,499	1,822.00	111.50
251000	Germany.....	Sept. 24, 1907	260,081	6,978.00	680.20
251276	do.....	do.....	204,953	6,396.00	512.38
254579	do.....	Sept. 27, 1907	11,197	310.00	27.99
254911	Netherlands.....	do.....	32,690	1,399.00	81.73
256180	Austria-Hungary.....	Sept. 28, 1907	259,447	6,299.00	648.62
257694	Norway.....	Oct. 1, 1907	512,029	14,600.00	1,280.07
257907	Germany.....	do.....	398,490	10,611.00	996.23
258149	Norway.....	do.....	384,468	9,112.00	961.16
257934	Netherlands.....	Oct. 2, 1907	34,222	857.00	85.56
261656	Russia.....	Oct. 4, 1907	102,692	2,246.00	256.73
265024	do.....	Oct. 8, 1907	75,435	1,815.00	188.59
266127	Norway.....	Oct. 9, 1907	340,340	8,568.00	850.85
266689	do.....	do.....	942,535	22,296.00	2,356.46
268188	Germany.....	Oct. 11, 1907	288,068	8,042.00	720.16
273246	Norway.....	Oct. 16, 1907	315,909	7,430.00	789.77
274347	do.....	Oct. 17, 1907	948,657	22,296.00	2,371.64
275382	Austria-Hungary.....	Oct. 18, 1907	849,561	21,591.00	2,123.90
276747	Germany.....	Oct. 21, 1907	275,896	7,909.00	689.76
278652	do.....	Oct. 22, 1907	249,924	6,929.00	624.31
278883	Netherlands.....	do.....	206,279	5,715.00	515.70
286004	do.....	Oct. 29, 1907	201,510	5,374.00	503.78
287169	Norway.....	Oct. 30, 1907	432,083	10,118.00	1,080.21
287933	do.....	do.....	1,097,695	26,381.00	2,744.24
286360	Germany.....	do.....	336,588	8,297.00	841.47
289083	Austria-Hungary.....	Nov. 2, 1907	201,651	4,384.00	404.13
293553	Germany.....	Nov. 6, 1907	292,240	8,025.00	730.60
293969	do.....	Nov. 7, 1907	129,097	3,291.00	322.74
294688	Russia.....	do.....	101,674	2,250.00	254.19
297188	Germany.....	Nov. 9, 1907	292,821	9,062.00	732.05
297955	Russia.....	Nov. 11, 1907	1,097,960	27,921.00	2,744.90
298523	Germany.....	do.....	52,344	1,209.00	130.86
299526	do.....	Nov. 12, 1907	308,480	8,208.00	771.20
300851	Norway.....	Nov. 13, 1907	367,009	3,943.00	917.32
304536	Germany.....	Nov. 15, 1907	156,746	3,970.00	391.87
306115	Austria-Hungary.....	Nov. 19, 1907	526,253	12,810.00	1,315.63
306118	Netherlands.....	do.....	17,188	488.00	42.97
309390	Norway.....	Nov. 21, 1907	939,050	22,750.00	2,347.03
311537	Germany.....	Nov. 25, 1907	409,392	10,409.00	1,023.43
312757	Russia.....	Nov. 26, 1907	68,194	1,493.00	170.46
313593	Germany.....	do.....	60,164	1,453.00	150.41
314897	Norway.....	Nov. 27, 1907	515,005	12,125.00	1,267.51
316394	Germany.....	Nov. 29, 1907	290,616	7,964.00	726.54
319366	Austria-Hungary.....	Dec. 2, 1907	573,568	12,915.00	1,433.92
321634	Germany.....	Dec. 4, 1907	329,060	9,009.00	822.05
325538	Russia.....	Dec. 9, 1907	68,504	1,495.00	171.26
325962	Sweden.....	do.....	112,875	2,086.00	188.13
328958	Norway.....	Dec. 12, 1907	104,130	2,455.00	260.23
329160	do.....	do.....	580,880	15,242.00	1,452.23
329750	Germany.....	Dec. 13, 1907	373,608	10,342.00	934.03
332058	do.....	Dec. 16, 1907	57,381	1,483.00	143.46
340519	Russia.....	Dec. 24, 1907	513,564	12,174.00	1,263.91
343406	Norway.....	Dec. 27, 1907	121,553	3,840.00	328.88

Imports of wood pulp, under paragraph 393, tariff of 1897, at the district and port of New York, from January 1, 1907, to June 1, 1908—Continued.

CHEMICALLY BLEACHED—Continued.

Entry No.	Country of origin.	Date.	Quantity.	Appraised value.	Duty collected.
			<i>Pounds.</i>		
845606	Germany.....	Dec. 30, 1907	39,695	\$1,140.00	\$69.24
847037	do.....	do.....	8,878	249.00	22.20
571	do.....	Jan. 2, 1908	288,066	8,070.00	720.17
1480	do.....	do.....	313,036	9,314.00	782.59
4068	Sweden.....	Jan. 6, 1908	157,190	4,032.00	392.98
10612	Germany.....	Jan. 13, 1908	135,320	4,284.00	338.30
11414	Norway.....	Jan. 14, 1908	122,948	3,457.00	307.37
11432	Austria-Hungary.....	do.....	198,132	4,285.00	495.33
11439	Germany.....	do.....	180,334	5,261.00	450.84
12036	Norway.....	do.....	314,517	7,891.00	786.29
12174	Austria-Hungary.....	Jan. 15, 1908	54,568	1,318.00	135.92
13109	Germany.....	Jan. 16, 1908	187,641	5,281.00	469.10
19600	Russia.....	Jan. 25, 1908	149,120	3,551.00	372.80
20683	Austria-Hungary.....	Jan. 27, 1908	747,030	17,630.00	1,867.58
25306	Sweden.....	Jan. 30, 1908	340,099	9,069.00	850.25
26319	Norway.....	Jan. 31, 1908	229,600	6,149.00	574.00
26655	Germany.....	Feb. 1, 1908	317,586	10,143.00	793.97
27044	do.....	do.....	41,712	1,186.00	104.28
30625	do.....	Feb. 8, 1908	35,807	963.00	89.52
37287	Norway.....	Feb. 17, 1908	179,576	2,636.00	448.94
38157	Germany.....	do.....	50,028	1,619.00	125.07
38380	Russia.....	Feb. 18, 1908	217,444	5,023.00	543.61
38608	Norway.....	do.....	146,365	3,667.00	365.91
39137	Germany.....	do.....	407,522	10,915.00	1,018.81
39306	Austria-Hungary.....	do.....	98,690	2,515.00	246.73
44218	Germany.....	Feb. 24, 1908	45,671	1,405.00	114.18
47274	Norway.....	Feb. 28, 1908	148,595	3,813.00	371.49
47411	do.....	do.....	120,960	3,202.00	302.40
46554	Germany.....	Mar. 2, 1908	197,666	5,476.00	494.17
51013	do.....	Mar. 3, 1908	295,397	8,020.00	738.49
53941	Norway.....	Mar. 5, 1908	115,215	2,727.00	288.04
56721	Germany.....	Mar. 10, 1908	200,402	5,399.00	501.01
57982	Norway.....	Mar. 11, 1908	144,088	3,831.00	360.22
58003	do.....	do.....	22,595	515.00	56.48
61037	Russia.....	Mar. 14, 1908	214,772	5,034.00	536.93
66196	Germany.....	Mar. 23, 1908	194,630	5,233.00	496.68
68672	do.....	Mar. 25, 1908	235,401	6,505.00	588.50
69647	Austria-Hungary.....	Mar. 26, 1908	264,358	5,669.00	660.90
71230	Norway.....	Mar. 28, 1908	1,045,606	26,151.00	2,614.02
71068	do.....	Mar. 30, 1908	129,269	3,388.00	323.17
72153	Germany.....	do.....	57,010	1,334.00	142.83
73793	Netherlands.....	Apr. 2, 1908	30,189	822.00	75.47
74316	Germany.....	do.....	197,461	5,351.00	493.68
79107	do.....	Apr. 8, 1908	295,941	8,163.00	739.85
79970	Norway.....	Apr. 9, 1908	92,303	2,554.00	230.76
80873	do.....	do.....	867,488	21,579.00	2,168.72
84019	Austria-Hungary.....	Apr. 15, 1908	36,798	920.00	92.00
84241	Germany.....	Apr. 20, 1908	387,960	10,660.00	969.90
87201	Sweden.....	Apr. 18, 1908	22,458	525.00	56.15
88073	Germany.....	Apr. 20, 1908	61,631	1,569.00	154.08
88909	do.....	Apr. 21, 1908	414,598	10,754.00	1,036.49
90668	Norway.....	Apr. 23, 1908	1,240,601	31,005.00	3,101.50
90870	do.....	do.....	189,864	4,097.00	474.66
94311	Germany.....	Apr. 28, 1908	58,614	1,758.00	146.54
94946	do.....	Apr. 29, 1908	395,130	10,520.00	987.83
98361	Düsseldorf, Germany.....	May 6, 1908	55,232	1,856.00	138.08
99615	Norway.....	do.....	925,224	22,065.00	2,313.06
102246	Germany.....	May 11, 1908	292,094	8,134.00	791.62
103538	do.....	May 12, 1908	196,862	5,399.00	492.16
106389	Austria-Hungary.....	May 15, 1908	250,359	5,673.00	625.90
108976	Germany.....	May 19, 1908	285,890	7,935.00	714.73
109659	do.....	May 20, 1908	33,197	965.00	82.99
110298	Norway.....	May 21, 1908	667,416	16,775.00	1,668.54
113773	Germany.....	May 26, 1908	198,269	5,368.00	495.67
	Total.....		66,142,478	1,653,121.00	167,108.54

Imports of filter masse or filter stock, under paragraph 395, tariff of 1897, at the district and port of New York, from January 1, 1907, to June 1, 1908.

Entry No.	Country of origin.	Date.	Quantity.	Appraised value.	Duty collected.
			<i>Pounds.</i>		
4949	Germany.....	Jan. 7, 1907	2,496	\$294.00	\$81.54
8375	Mannheim, Germany.....	Jan. 9, 1907	9,436	889.00	274.89
15787	Germany.....	Jan. 18, 1907	1,102	169.00	41.88
22982	.....do.....	Jan. 26, 1907	2,204	174.00	59.16
58916	.....do.....	Mar. 6, 1907	13,045	1,169.00	371.03
61710	.....do.....	Mar. 9, 1907	4,960	396.00	123.80
62800	.....do.....	Mar. 11, 1907	4,651	432.00	134.57
63517	.....do.....	.....do.....	468	41.00	13.10
69981	.....do.....	Mar. 18, 1907	1,102	150.00	39.03
79203	.....do.....	Mar. 28, 1907	1,102	169.00	41.88
91092	.....do.....	Apr. 8, 1907	2,206	345.00	84.83
103056	.....do.....	Apr. 22, 1907	2,646	189.00	68.04
106289	.....do.....	Apr. 24, 1907	2,206	224.00	68.18
124428	.....do.....	May 13, 1907	3,516	298.00	95.78
126837	.....do.....	.....do.....	551	44.00	14.87
131351	.....do.....	May 20, 1907	749	93.00	25.16
133528	.....do.....	May 22, 1907	14,890	1,291.00	417.00
148932	.....do.....	June 7, 1907	2,701	284.00	83.12
150093	.....do.....	June 10, 1907	6,651	681.00	186.36
153880	.....do.....	June 13, 1907	1,102	150.00	39.03
160029	.....do.....	June 20, 1907	233	29.00	7.70
164699	.....do.....	June 24, 1907	496	67.00	14.49
168040	.....do.....	June 28, 1907	9,921	922.00	287.12
175404	.....do.....	July 8, 1907	2,206	326.00	81.99
182994	.....do.....	July 16, 1907	1,543	175.00	49.40
183225	.....do.....	.....do.....	6,739	799.00	230.94
199949	.....do.....	July 25, 1907	5,511	493.00	156.62
203638	.....do.....	Aug. 6, 1907	2,206	322.00	81.38
206521	.....do.....	Aug. 8, 1907	3,328	393.00	108.45
207822	.....do.....	Aug. 9, 1907	5,071	511.00	152.72
215942	.....do.....	Aug. 19, 1907	1,920	237.00	64.35
228347	.....do.....	Aug. 31, 1907	2,206	326.00	81.98
239512	.....do.....	Sept. 12, 1907	3,748	864.00	109.32
253385	.....do.....	Sept. 26, 1907	3,307	496.00	122.51
262152	.....do.....	Oct. 5, 1907	441	62.00	14.42
272081	.....do.....	Oct. 14, 1907	1,106	150.00	39.09
278652	.....do.....	Oct. 22, 1907	9,572	903.00	279.08
282570	.....do.....	Oct. 25, 1907	3,858	827.00	106.92
284547	.....do.....	Oct. 28, 1907	2,204	192.00	61.96
296085	.....do.....	Nov. 11, 1907	3,527	350.00	105.41
304298	.....do.....	Nov. 18, 1907	992	90.00	28.28
326904	.....do.....	Dec. 9, 1907	1,499	116.00	39.89
340519	.....do.....	Dec. 24, 1907	9,634	909.00	280.86
3694	.....do.....	Jan. 6, 1908	5,372	463.00	155.43
15384	.....do.....	Jan. 22, 1908	1,102	153.00	39.48
36917	.....do.....	Feb. 17, 1908	441	62.00	7.80
43449	.....do.....	Feb. 24, 1908	3,031	264.00	83.57
45655	.....do.....	Feb. 26, 1908	7,972	645.00	216.38
49510	.....do.....	Mar. 2, 1908	3,788	328.00	106.02
53268	.....do.....	Mar. 5, 1908	1,323	94.00	33.95
58396	.....do.....	Mar. 13, 1908	2,293	239.00	70.25
59636	.....do.....	.....do.....	3,638	537.00	135.12
67171	.....do.....	Mar. 24, 1908	224	29.00	7.71
77583	.....do.....	Apr. 6, 1908	112	18.00	4.38
81710	.....do.....	Apr. 11, 1908	8,621	639.00	224.52
85715	.....do.....	Apr. 16, 1908	2,646	264.00	79.29
92143	.....do.....	Apr. 25, 1908	441	62.00	14.42
93665	.....do.....	Apr. 27, 1908	2,998	293.00	79.92
93937	.....do.....	.....do.....	4,372	617.00	163.13
99535	.....do.....	May 6, 1908	7,352	680.00	212.28
104259	.....do.....	May 12, 1908	4,511	442.00	133.97
115440	.....do.....	May 28, 1908	7,584	581.00	204.66
Total.....			227,118	22,141.00	6,721.11

Imports of printing paper, under paragraph 596, tariff of 1897, at the district and port of New York, from January 1, 1907, to June 1, 1908.

Entry No.	Country of origin.	Date.	Quantity.	Appraised value.	Duty collected.
			<i>Pounds.</i>		
316	Austria-Hungary	Jan. 2, 1907	134,350	\$4,819.00	\$306.10
3399	Netherlands	Jan. 4, 1907	1,260	261.00	39.16
4748	Germany	Jan. 7, 1907	10,468	1,574.00	236.10
7770	Japan	Jan. 9, 1907	9,238	557.00	83.55
7895	Germany	do	794	166.00	24.90
8569	do	Jan. 10, 1907	2,302	258.00	38.70
9175	Italy	Jan. 11, 1907	12,397	1,773.00	265.95
10420	Canada	do	31,900	479.00	95.70
10928	England	Jan. 14, 1907	2,345	290.00	43.50
11920	do	Jan. 15, 1907	2,132	611.00	91.65
12159	Japan	do	270	79.00	11.85
12482	Netherlands	do	960	171.00	25.65
12539	Japan	do	195	62.00	9.30
12932	Austria-Hungary	Jan. 16, 1907	64,881	2,631.00	409.10
13595	Germany	do	6,298	1,128.00	169.20
15500	Japan	Jan. 18, 1907	406	69.00	10.35
17918	England	Jan. 21, 1907	2,152	617.00	92.55
19768	Japan	Jan. 23, 1907	1,999	412.00	61.80
21506	Germany	Jan. 24, 1907	3,752	215.00	32.25
22011	France	Jan. 25, 1907	3,300	231.00	34.65
22108	Germany	do	28,855	2,700.00	406.00
22987	Scotland	Jan. 26, 1907	1,400	355.00	53.25
23143	Germany	do	5,038	412.00	61.80
26104	do	Jan. 29, 1907	8,051	382.00	64.41
28025	France	Jan. 31, 1907	15,424	1,074.00	161.10
29355	Germany	Feb. 1, 1907	14,912	1,132.00	169.80
40398	do	Feb. 15, 1907	7,482	1,097.00	164.55
41841	do	Feb. 16, 1907	27,071	1,209.00	181.35
41998	Austria-Hungary	do	276	113.00	16.95
43466	England	Feb. 18, 1907	14,318	1,326.00	198.40
43929	Austria-Hungary	do	1,290	169.00	25.35
44068	Germany	Feb. 19, 1907	3,337	357.00	53.55
46833	do	Feb. 20, 1907	990	187.00	28.05
46558	do	Feb. 21, 1907	31,299	2,719.00	407.85
47134	Austria-Hungary	Feb. 23, 1907	19,327	745.00	136.17
49065	Germany	do	22,724	2,234.00	335.10
49395	England	Feb. 25, 1907	16,105	713.00	128.84
51925	Netherlands	Feb. 27, 1907	1,056	154.00	23.10
52172	Germany	do	6,147	938.00	140.70
52966	Japan	do	3,138	610.00	91.50
52968	France	Feb. 28, 1907	1,975	288.01	43.20
55118	Scotland	Mar. 4, 1907	2,600	121.00	18.15
56594	London	Mar. 5, 1907	2,124	108.00	16.20
58274	France	Mar. 6, 1907	637	46.00	6.90
61182	Germany	Mar. 9, 1907	2,597	217.00	32.55
62266	do	Mar. 11, 1907	15,253	2,125.00	318.75
63757	England	Mar. 12, 1907	3,895	549.00	82.35
64210	do	do	3,280	878.00	131.70
65303	Canada	Mar. 13, 1907	33,597	564.00	100.79
65304	do	do	48,026	792.00	144.08
65443	do	Mar. 14, 1907	77,959	1,286.00	233.88
65963	do	do	50,560	834.00	151.68
65984	do	do	98,319	1,622.00	294.96
65995	do	do	124,956	2,062.00	374.87
66798	Germany	Mar. 15, 1907	17,316	1,504.00	225.60
67539	Canada	do	77,119	1,272.00	231.36
67699	Japan	Mar. 16, 1907	1,010	323.00	48.45
67700	do	do	295	84.00	12.60
68226	Germany	Mar. 18, 1907	5,429	1,522.00	228.30
69358	France	do	22,638	1,667.00	250.05
69957	Italy	do	242	54.00	8.10
70085	France	do	380	35.00	5.25
70395	Germany	do	23,615	2,099.00	501.25
71176	Austria-Hungary	Mar. 19, 1907	283	38.00	5.70
71285	England	do	25,410	1,950.00	292.50
71295	do	do	5,615	416.00	62.40
71463	Canada	do	264,620	4,366.00	793.88
72000	Germany	do	942	178.00	26.70
72225	Netherlands	do	3,120	292.00	43.80
73646	Germany	Mar. 21, 1907	15,257	1,223.00	183.45
75275	Canada	Mar. 22, 1907	41,004	679.00	123.47
75276	do	do	74,350	1,224.00	222.49
75428	Japan	do	1,310	261.00	39.15
75947	Canada	do	48,220	796.00	144.66
77953	France	Mar. 25, 1907	469	84.00	12.60
78830	Japan	Mar. 26, 1907	2,228	486.00	72.90
78832	do	do	658	194.00	29.10
78834	France	do	22,068	3,182.00	477.30
79419	Germany	do	58	8.00	.75

Imports of printing paper, under paragraph 396, tariff of 1897, at the district and port of New York, from January 1, 1907, to June 1, 1908—Continued.

Entry No.	Country of origin.	Date.	Quantity.	Appraised value.	Duty collected.
			<i>Pounds.</i>		
81219	France	Mar. 28, 1907	2,661	\$413.00	\$61.95
82421	China	Mar. 29, 1907	1,200	55.00	8.40
85759	Japan	Apr. 2, 1907	260	77.00	11.55
87075	France	Apr. 3, 1907	7,994	546.00	81.90
87439	do	do	15,282	2,948.00	442.20
87777	Belgium	Apr. 4, 1907	5,091	209.00	35.79
88839	England	Apr. 5, 1907	4,674	1,344.00	201.60
94502	Scotland	Apr. 11, 1907	4,272	32.00	4.80
96230	Germany	Apr. 13, 1907	17,270	2,247.00	337.05
97221	do	Apr. 15, 1907	104,020	2,670.00	520.10
98273	France	do	17,666	1,283.00	192.75
98317	do	Apr. 16, 1907	1,968	245.00	36.75
104687	Austria-Hungary	Apr. 22, 1907	409	38.00	5.70
106135	Germany	Apr. 24, 1907	35,822	1,724.00	258.60
106580	do	do	12,024	548.00	96.19
107034	do	Apr. 25, 1907	10,184	2,011.00	301.15
107312	do	do	1,321	214.00	32.10
109164	do	do	15,556	1,388.00	208.20
111884	do	Apr. 29, 1907	4,462	676.00	101.25
113628	do	May 1, 1907	3,314	686.00	104.25
115210	do	May 3, 1907	8,541	1,385.00	207.75
116080	do	May 3, 1907	2,340	186.00	29.25
119837	Scotland	May 7, 1907	19,998	3,086.00	462.90
120288	Germany	do	9,550	1,075.00	161.25
129956	France	May 10, 1907	5,280	370.00	55.50
125987	Germany	May 13, 1907	13,301	1,816.00	277.40
125933	Austria-Hungary	May 14, 1907	473	52.00	7.80
127252	England	do	5,945	1,704.00	255.60
133478	Germany	May 22, 1907	6,504	664.00	99.90
133566	do	do	9	1.00	.15
135266	Belgium	May 23, 1907	6,947	298.00	55.58
136672	Germany	do	9,599	1,054.00	158.10
137860	France	May 27, 1907	16,296	1,138.00	170.70
139055	Scotland	do	10,518	1,635.00	245.25
142625	Austria-Hungary	May 31, 1907	8,351	864.00	129.60
142706	Germany	do	8,244	1,044.00	155.00
145682	Scotland	June 3, 1907	21,875	3,414.00	512.10
145734	France	June 4, 1907	16,911	1,183.00	177.45
148421	Austria-Hungary	June 7, 1907	113,911	4,295.00	781.20
148423	Germany	do	3,571	204.00	30.60
152120	do	June 11, 1907	27,114	2,428.00	364.20
157412	Austria-Hungary	June 17, 1907	1,210	176.00	26.40
157827	Germany	June 18, 1907	13,145	1,648.00	247.20
159303	do	June 19, 1907	42	4.00	.60
160436	Scotland	June 20, 1907	8,960	414.00	71.68
163963	Germany	June 24, 1907	1,830	194.00	29.10
165439	England	June 25, 1907	4,511	218.00	35.49
166156	Germany	June 26, 1907	17,715	738.00	110.70
166341	Canada	do	3,612	73.00	14.45
168722	do	June 28, 1907	4,600	99.00	18.40
169668	Germany	do	5,012	823.00	123.45
174100	France	July 5, 1907	2,125	1,090.00	164.40
175188	do	July 8, 1907	16,528	1,963.00	294.45
178497	England	July 9, 1907	9,557	707.00	106.05
178851	Germany	do	49,149	2,270.00	363.19
182938	do	July 15, 1907	3,585	548.00	82.20
183764	Canada	do	3,800	82.00	15.20
184119	France	July 16, 1907	6,017	713.00	105.95
187341	England	July 19, 1907	4,285	1,228.00	184.20
189446	Germany	July 22, 1907	10,907	1,368.00	205.20
191119	England	July 25, 1907	9,900	452.00	79.20
194295	Germany	July 26, 1907	7,896	698.00	103.20
194998	do	do	580	55.00	8.25
198025	do	July 30, 1907	10,088	144.00	21.60
201040	do	Aug. 3, 1907	8,578	499.00	74.85
201042	do	do	20,707	2,325.00	348.75
201372	Austria-Hungary	Aug. 5, 1907	25,110	390.00	150.66
204498	Japan	Aug. 6, 1907	1,540	320.00	58.50
207214	Belgium	Aug. 9, 1907	29,687	1,220.00	237.80
207374	Germany	do	11,757	1,607.00	241.05
208821	Austria-Hungary	do	2,498	126.00	19.60
209284	Germany	Aug. 10, 1907	5,177	364.00	54.60
211801	Canada	Aug. 13, 1907	4,988	101.00	19.35
212899	England	Aug. 15, 1907	2,551	128.00	19.20
213628	France	do	12,342	719.00	107.85
214802	Germany	Aug. 17, 1907	22,573	3,137.00	470.10
217800	do	Aug. 20, 1907	1,318	248.00	37.20
221034	do	Aug. 25, 1907	9,148	979.00	146.85

Imports of printing paper, under paragraph 396, tariff of 1897, at the district and port of New York, from January 1, 1907, to June 1, 1908—Continued.

Entry No.	Country of origin.	Date.	Quantity.	Appraised value.	Duty collected.
			Pounds.		
223342	Canada	Aug. 26, 1907	4,600	\$399.00	\$399.29
224206	do.	do.	6,118	119.00	24.47
231711	England	Sept. 4, 1907	1,385	130.00	19.50
231964	Austria-Hungary	do.	55,123	2,611.00	\$30.94
232440	England	do.	9,435	418.00	75.48
233439	Germany	Sept. 5, 1907	3,124	469.00	70.35
241954	Scotland	Sept. 16, 1907	1,659	252.00	37.80
243749	Austria-Hungary	Sept. 17, 1907	27,448	1,825.00	273.75
245826	Germany	Sept. 18, 1907	20,514	1,858.00	278.70
246348	France	Sept. 19, 1907	15,501	1,389.00	208.35
246564	Germany	do.	18,746	2,139.00	320.85
246771	do.	do.	3,771	1,420.00	213.00
247450	England	Sept. 20, 1907	5,600	88.00	13.20
249535	Canada	Sept. 21, 1907	4,600	99.00	18.40
250969	France	Sept. 24, 1907	11,935	2,096.00	314.40
252337	Germany	Sept. 25, 1907	1,107	151.00	22.65
253459	do.	Sept. 26, 1907	11,962	1,771.00	265.65
261339	do.	Oct. 3, 1907	8,747	1,025.00	153.75
263368	do.	Oct. 8, 1907	7,831	370.00	62.65
265836	do.	Oct. 9, 1907	20,837	1,956.00	293.40
267043	Japan	Oct. 10, 1907	1,106	81.00	12.15
270988	France	Oct. 15, 1907	14,337	1,854.00	278.10
274066	do.	Oct. 17, 1907	5,698	402.00	60.30
274450	Switzerland	do.	7,098	618.00	92.70
275837	Germany	Oct. 19, 1907	9,713	287.00	43.05
278353	Austria-Hungary	Oct. 21, 1907	34,251	1,447.00	274.01
282726	Germany	Oct. 25, 1907	18,286	1,851.00	277.65
282303	do.	do.	9,236	212.00	31.80
283245	Italy	Oct. 28, 1907	1,534	227.00	34.05
287570	France	Oct. 31, 1907	11,746	823.00	123.45
287946	Belgium	do.	30,801	1,663.00	307.91
288587	Germany	do.	27,420	1,067.00	181.32
299939	Austria-Hungary	Nov. 2, 1907	26,145	1,212.00	217.96
299062	Germany	Nov. 4, 1907	4,709	619.00	92.85
292248	do.	Nov. 6, 1907	9,913	1,340.00	201.00
294188	do.	Nov. 7, 1907	5,869	610.00	91.50
294747	do.	do.	19,189	707.00	115.13
294864	France	do.	10,980	763.00	114.45
295240	Germany	do.	19,976	2,484.00	372.60
298212	do.	Nov. 11, 1907	1,041	88.00	13.20
298998	Scotland	do.	14,924	2,270.00	340.50
300330	France	Nov. 12, 1907	4,539	573.00	130.95
304129	Austria-Hungary	Nov. 18, 1907	63,118	3,543.00	531.45
304131	do.	do.	3,988	326.00	48.90
304911	Germany	do.	15,523	1,881.00	282.15
312631	do.	Nov. 25, 1907	4,310	375.00	56.25
315747	do.	do.	992	220.00	33.00
314550	do.	Nov. 26, 1907	1,933	174.00	26.10
317227	do.	Nov. 29, 1907	4,429	386.00	57.90
320457	Japan	Dec. 3, 1907	1,825	630.00	79.50
323400	Austria-Hungary	Dec. 6, 1907	64,420	2,933.00	502.94
324248	Germany	do.	10,978	1,447.00	227.05
325178	do.	Dec. 7, 1907	14,578	838.00	125.70
327826	do.	Dec. 13, 1907	16,894	2,750.00	412.50
327967	England	do.	16,777	790.00	118.50
330488	France	Dec. 14, 1907	5,447	380.00	57.00
330807	England	do.	3,439	537.00	80.55
330905	Germany	Dec. 16, 1907	12,955	1,307.00	198.05
331417	Scotland	do.	65,258	3,292.00	493.80
333052	England	do.	599	169.00	25.35
337481	Germany	Dec. 21, 1907	28,687	3,122.00	468.30
337578	Austria-Hungary	do.	7,875	660.00	99.00
339928	Germany	Dec. 24, 1907	2,633	399.00	59.85
340282	England	do.	10,000	773.00	115.95
345708	Germany	Dec. 30, 1907	10,972	1,025.00	153.75
260	France	Jan. 2, 1908	17,057	3,281.00	492.15
410	Germany	do.	939	144.00	21.60
2269	France	do.	4,352	299.00	44.85
2631	Japan	Jan. 3, 1908	290	85.00	12.75
5219	Germany	Jan. 7, 1908	50,130	1,284.00	263.25
5553	do.	do.	6,251	740.00	111.00
8843	France	Jan. 10, 1908	11,358	869.00	130.35
12517	Netherlands	Jan. 15, 1908	15,096	780.00	117.00
12872	England	Jan. 16, 1908	2,108	126.00	18.90
13266	France	do.	8,369	296.00	44.40
17825	Canada	Jan. 23, 1908	34,977	846.00	139.91
18908	France	Jan. 24, 1908	4,396	300.00	45.00

* Appraiser increases value \$19.90.

† Additional duty under section 32, \$10.80.

Imports of printing paper, under paragraph 396, tariff of 1897, at the district and port of New York, from January 1, 1907, to June 1, 1908—Continued.

Entry No.	Country of origin.	Date.	Quantity.	Appraised value.	Duty collected.
			<i>Pounds.</i>		
20068	Austria-Hungary	Jan. 27, 1908	74,701	\$2,790.00	\$448.21
21066	Germany	do	8,735	214.00	32.10
21916	do	do	7,740	601.00	75.15
23431	England	Jan. 29, 1908	2,160	102.00	17.28
23468	do	do	2,690	153.00	22.96
24433	Germany	Jan. 30, 1908	19,985	1,896.00	282.90
28388	England	Feb. 4, 1908	1,519	78.00	11.70
31315	Italy	Feb. 8, 1908	2,856	316.00	47.40
33345	Germany	Feb. 10, 1908	1,573	652.00	97.80
33814	England	Feb. 11, 1908	8,954	2,460.00	369.00
34430	Germany	Feb. 13, 1908	2,384	454.00	68.10
34893	Italy	do	18,214	1,590.00	238.50
34894	France	do	19,974	1,392.00	208.80
36144	Germany	Feb. 14, 1908	20,146	2,006.00	300.90
37575	do	Feb. 17, 1908	24,912	1,398.00	209.70
40192	Netherlands	Feb. 18, 1908	46,294	2,442.00	336.30
44967	England	Feb. 25, 1908	6,032	285.00	48.28
48233	Netherlands	Feb. 29, 1908	9,562	494.00	74.10
51772	Japan	Mar. 4, 1908	335	120.00	18.00
51773	do	do	88	15.00	2.25
52053	France	do	6,068	425.00	63.75
52321	Austria-Hungary	do	63,395	2,240.00	380.37
59073	England	Mar. 9, 1908	2,125	331.00	49.65
57708	Germany	Mar. 11, 1908	2,277	208.00	31.20
59418	do	Mar. 14, 1908	8,975	1,563.00	234.45
62349	England	do	3,895	599.00	88.35
61580	Austria-Hungary	Mar. 16, 1908	4,115	557.00	83.55
68323	France	Mar. 25, 1908	6,824	662.00	99.30
68324	Japan	do	505	122.00	18.30
70993	Germany	Mar. 28, 1908	8,886	984.00	147.60
73543	do	Apr. 1, 1908	1,010	211.00	31.65
74112	England	Apr. 2, 1908	10,393	1,530.00	229.50
74363	Germany	do	428	88.00	12.90
78471	do	Apr. 6, 1908	46,129	2,116.00	369.03
78200	Scotland	Apr. 7, 1908	5,140	795.00	119.25
78608	Austria-Hungary	Apr. 8, 1908	15,288	827.00	91.63
84683	Germany	Apr. 16, 1908	3,170	316.00	47.40
88285	Netherlands	Apr. 17, 1908	22,568	1,167.00	175.05
87594	Germany	Apr. 20, 1908	243	22.00	3.30
89003	do	Apr. 21, 1908	2,488	242.00	35.30
89795	France	Apr. 22, 1908	4,455	308.00	46.20
90506	Netherlands	do	10,145	485.00	81.16
92952	Germany	Apr. 27, 1908	15,710	1,892.00	208.80
93830	do	do	27,597	634.00	110.39
94214	Scotland	Apr. 28, 1908	3,570	175.00	26.25
95144	Italy	Apr. 29, 1908	714	117.00	17.55
96824	Germany	May 1, 1908	46,563	2,136.00	357.29
97306	Canada	May 2, 1908	38,336	728.00	115.01
98166	Scotland	May 4, 1908	6,485	294.00	51.88
99337	France	May 6, 1908	3,234	228.00	34.20
99604	Germany	do	162	16.00	2.40
100074	Austria-Hungary	do	37,985	1,301.00	227.91
102464	do	May 11, 1908	4,631	402.00	60.30
102759	England	do	7,918	1,164.00	174.60
103290	Germany	do	3,600	198.00	29.70
104145	do	May 12, 1908	1,150	97.00	14.55
105850	do	May 14, 1908	4,491	300.00	45.00
106323	England	May 15, 1908	165	13.00	1.95
108099	Austria-Hungary	May 18, 1908	4,405	549.00	82.35
108606	England	May 19, 1908	1,588	77.00	11.55
109050	France	do	6,574	464.00	69.60
109342	England	May 20, 1908	11,879	626.00	93.90
111333	do	May 22, 1908	3,001	155.00	23.25
111593	Germany	do	13,338	1,853.00	277.95
115542	England	May 26, 1908	803	66.00	9.90
	Total		4,371,168	272,021.00	42,954.01

No pulp woods were imported at New York.

PORT OF BRIDGEPORT, CONN.

Importations of mechanically ground wood pulp in the district of Bridgeport, Conn., from January 1, 1907, to June 1, 1908, from St. George, New Brunswick.

Date.		Quantity.	Value.	Duty.
1907.		<i>Pounds.</i>		
May	3	677,700	\$4,706.00	\$564.75
	27	819,000	5,686.00	682.80
June	3	688,500	4,781.00	573.75
	4	360,000	2,500.00	300.00
	15	679,050	4,715.00	565.88
July	9	693,000	4,812.00	577.50
	13	388,980	2,761.00	324.15
	20	647,100	4,493.00	538.25
	23	688,500	4,781.00	573.75
	26	837,000	5,812.00	697.50
Aug.	5	712,000	4,950.00	593.33
	8	646,650	4,490.00	538.88
Nov.	20	639,900	4,443.00	533.25
		8,477,380	58,870.00	7,064.49
1908.				
Apr.	8	506,000	3,514.00	421.67
May	8	515,200	3,578.00	429.33
	8	591,560	4,108.00	492.97
	11	361,560	2,511.00	301.30
	22	552,000	3,833.00	460.00
		2,526,320	17,544.00	2,105.27

No filter masse, printing paper, or pulp wood is imported in this district.

PORT OF NEW LONDON, CONN.

Importations of mechanically ground wood pulp entered at the port of New London, Conn., from Liverpool, Nova Scotia, under paragraph 393 during the period from January 1, 1907, to June 1, 1908.

Date of entry.	Quantity.	Value.	Entry duty.	Liquidated duty.	Excess.	Refund.
1907.	<i>Pounds.</i>					
April 11	229,752	\$1,204.10	\$191.46	\$174.68	\$16.78	.....
May 3	222,168	1,168.95	185.14	158.91	26.23	.....
May 13	236,232	1,240.70	196.86	190.49	6.37	.....
June 3	233,000	1,223.25	194.17	177.56	16.61	.....
July 11	253,332	1,330.00	211.11	200.14	10.97	.....
July 30	253,930	1,333.15	211.61	258.90	.....	\$47.29
August 19	247,457	1,301.60	206.21	188.90	17.31	.....
September 24	250,604	1,315.60	208.84	194.19	14.64	.....
October 7	227,044	1,191.80	189.20	189.20	.....	.....
Total	2,153,519	11,309.15	1,794.60	1,732.97	108.91	47.29

No importations during period from January 1, 1907, to June 1, 1908, of filter masse or filter stock under paragraph 395, nor printing paper under paragraph 396, nor pulp woods under paragraph 699 of the tariff act of 1897.

PORT OF BOSTON, MASS.

Statement showing importations of wood pulp, filter masse, printing paper, and pulp woods at the port of Boston for the period from January 1, 1907, to June 1, 1908.

MECHANICALLY GROUND WOOD PULP.

Country of origin.	Date.	Quantity.	Value.	Duty collected.
		<i>Pounds.</i>		
Nova Scotia.....	Mar. 26, 1907	181, 130	\$1, 065. 00	\$150. 94

CHEMICAL WOOD PULP, UNBLEACHED.

		<i>Pounds.</i>		
Russia.....	Jan. 11, 1907	443, 160	\$7, 880. 00	\$728. 60
Sweden.....	Jan. 21, 1907	102, 790	1, 916. 00	171. 32
Norway.....	do	213, 988	4, 234. 00	366. 65
Russia.....	do	32, 439	565. 00	54. 07
Sweden.....	do	103, 100	1, 786. 00	171. 83
Do.....	do	366, 686	6, 249. 00	611. 14
Germany.....	do	467, 394	9, 526. 00	778. 99
Russia.....	Jan. 23, 1907	412, 342	7, 903. 00	687. 24
Sweden.....	Jan. 30, 1907	48, 982	958. 00	81. 64
Russia.....	do	84, 669	1, 502. 00	141. 12
Germany.....	do	137, 063	3, 151. 00	228. 44
Sweden.....	Jan. 31, 1907	989, 980	16, 433. 00	1, 649. 47
Russia.....	Feb. 13, 1907	184, 176	3, 181. 00	306. 96
Germany.....	do	162, 339	3, 069. 00	270. 57
Do.....	do	184, 706	3, 363. 00	274. 51
Sweden.....	Feb. 18, 1907	53, 590	1, 085. 00	89. 32
Germany.....	do	110, 602	2, 091. 00	184. 34
Sweden.....	Feb. 25, 1907	148, 267	2, 769. 00	247. 11
Germany.....	Mar. 6, 1907	98, 381	2, 526. 00	163. 97
Russia.....	Mar. 19, 1907	33, 632	507. 00	56. 06
Sweden.....	do	105, 056	2, 190. 00	175. 09
Germany.....	do	215, 685	4, 151. 00	359. 48
Sweden.....	do	276	6. 00	. 46
Do.....	Mar. 22, 1907	45, 023	852. 00	75. 04
Do.....	Mar. 29, 1907	450, 665	8, 005. 00	787. 83
Do.....	Apr. 23, 1907	32, 381	611. 00	53. 97
Russia.....	do	199, 608	3, 356. 00	332. 68
Germany.....	do	234, 383	4, 512. 00	390. 64
Russia.....	do	152, 516	2, 804. 00	254. 19
England.....	Apr. 24, 1907	222, 948	4, 068. 00	371. 58
Norway.....	May 1, 1907	109, 535	2, 165. 00	182. 56
Sweden.....	do	170, 363	2, 792. 00	283. 94
England.....	May 2, 1907	218, 860	4, 043. 00	364. 77
Germany.....	May 6, 1907	51, 066	1, 112. 00	85. 14
Sweden.....	May 8, 1907	51, 307	973. 00	85. 51
Russia.....	do	88, 290	1, 503. 00	147. 15
Germany.....	do	362, 595	6, 964. 00	604. 33
Sweden.....	May 9, 1907	109, 073	2, 245. 00	181. 79
England.....	May 17, 1907	32, 385	610. 00	53. 98
Russia.....	May 21, 1907	156, 243	2, 646. 00	260. 41
Germany.....	do	358, 585	6, 744. 00	597. 64
Sweden.....	do	32, 230	418. 00	53. 72
Norway.....	do	32, 142	557. 00	53. 57
Sweden.....	May 25, 1907	107, 514	2, 028. 00	179. 19
Do.....	May 27, 1907	444, 695	7, 568. 00	741. 16
England.....	May 31, 1907	32, 667	610. 00	54. 45
Germany.....	June 8, 1907	67, 730	1, 277. 00	112. 88
Do.....	June 10, 1907	31, 382	620. 00	62. 30
Norway.....	do	75, 563	1, 503. 00	126. 94
Do.....	June 24, 1907	53, 755	920. 00	89. 59
Sweden.....	do	52, 490	973. 00	87. 48
Do.....	do	66, 110	1, 314. 00	110. 18
Germany.....	do	767, 438	13, 843. 00	1, 279. 06
Do.....	June 26, 1907	423, 701	7, 585. 00	706. 17
Sweden.....	June 27, 1907	159, 365	2, 837. 00	265. 61
Norway.....	do	53, 435	1, 341. 00	133. 59
Germany.....	July 8, 1907	106, 582	1, 810. 00	177. 64
Do.....	do	42, 463	701. 00	70. 77
Do.....	July 22, 1907	124, 679	2, 628. 00	207. 80
Sweden.....	do	43, 817	826. 00	73. 03
Russia.....	do	142, 966	2, 340. 00	238. 28
Germany.....	do	637, 314	10, 475. 00	1, 082. 19
Do.....	do	32, 340	493. 00	53. 90
Sweden.....	do	66, 690	1, 314. 00	111. 15
Do.....	July 31, 1907	107, 196	1, 806. 00	178. 68
Do.....	do	33, 600	607. 00	68. 00
Norway.....	do	66, 400	1, 103. 00	112. 00

Statement showing importations of wood pulp, filter masse, printing paper, and pulp woods at the port of Boston for the period from January 1, 1907, to June 1, 1908—Continued.

CHEMICAL WOOD PULP, UNBLEACHED—Continued.

Country of origin.	Date.	Quantity.	Value.	Duty collected.
		<i>Pounds.</i>		
Sweden.....	Aug. 3, 1907	113,200	\$2,129.00	\$186.67
Russia.....	do.	178,045	3,073.00	296.74
Germany.....	do.	1,023,111	22,506.00	1,705.19
Do.....	do.	155,444	3,212.00	259.07
Sweden.....	Aug. 10, 1907	53,547	1,018.00	89.25
Do.....	do.	141,701	2,412.00	236.17
Germany.....	do.	33,377	518.00	55.63
Norway.....	do.	160,273	2,783.00	267.12
Germany.....	do.	574,335	9,857.00	957.56
Sweden.....	Aug. 12, 1907	65,880	1,314.00	109.80
Norway.....	Aug. 13, 1907	113,234	1,877.00	188.72
Sweden.....	do.	107,190	2,038.00	179.65
Germany.....	Aug. 26, 1907	335,286	5,659.00	558.81
Norway.....	do.	32,371	651.00	53.95
Sweden.....	Aug. 29, 1907	108,624	1,806.00	181.04
Norway.....	do.	32,433	551.00	54.05
Sweden.....	do.	88,534	1,787.00	148.06
Do.....	do.	42,321	743.00	73.04
Russia.....	Sept. 4, 1907	191,780	3,154.00	319.63
Sweden.....	do.	42,454	743.00	70.76
Do.....	Sept. 14, 1907	150,242	2,597.00	250.40
Germany.....	do.	111,869	2,476.00	186.45
Do.....	do.	139,347	2,184.00	232.25
Sweden.....	do.	66,720	1,314.00	111.20
Norway.....	Sept. 18, 1907	161,080	2,783.00	268.41
Germany.....	Sept. 24, 1907	49,403	1,119.00	82.34
Sweden.....	Sept. 25, 1907	31,186	595.00	51.98
Do.....	do.	890,053	15,982.00	1,483.42
Do.....	do.	108,988	1,833.00	181.65
Germany.....	Sept. 28, 1907	424,831	8,653.00	708.05
Do.....	do.	219,954	3,480.00	366.59
Sweden.....	Oct. 5, 1907	65,495	1,314.00	109.16
Russia.....	do.	145,771	2,413.00	242.95
Germany.....	do.	353,273	6,081.00	588.79
Norway.....	Oct. 7, 1907	134,867	2,252.00	224.78
Sweden.....	do.	882,588	15,271.00	1,471.00
Norway.....	do.	11,023	218.00	18.37
Germany.....	Oct. 8, 1907	30,985	731.00	51.64
Sweden.....	Oct. 13, 1907	42,847	744.00	71.41
Norway.....	do.	32,212	552.00	53.69
Germany.....	do.	97,756	1,625.00	162.93
Sweden.....	Nov. 4, 1907	107,182	1,833.00	178.64
Germany.....	do.	103,705	2,425.00	172.84
Norway.....	do.	33,588	558.00	56.00
Sweden.....	do.	582,651	9,493.00	971.09
Norway.....	do.	45,807	780.00	76.35
Sweden.....	Nov. 11, 1907	53,840	928.00	89.73
Russia.....	Nov. 12, 1907	158,421	2,595.00	264.04
Germany.....	do.	738,343	13,525.00	1,230.57
Norway.....	Nov. 24, 1907	171,565	3,256.00	285.94
Germany.....	Nov. 25, 1907	261,587	4,777.00	435.98
Sweden.....	do.	63,093	1,241.00	105.16
Do.....	Nov. 27, 1907	959,820	16,071.00	1,599.70
Germany.....	Nov. 29, 1907	177,171	3,006.00	295.29
Sweden.....	do.	255,963	4,453.00	426.61
Germany.....	Dec. 3, 1907	183,566	3,006.00	305.94
Russia.....	Dec. 9, 1907	110,808	1,851.00	184.68
Sweden.....	do.	210,049	4,167.00	350.08
Russia.....	do.	42,161	737.00	70.27
Germany.....	do.	329,332	6,580.00	548.89
Sweden.....	do.	169,859	2,969.00	283.10
Norway.....	Dec. 17, 1907	53,239	929.00	88.73
Do.....	do.	164,871	2,827.00	274.79
Germany.....	do.	104,804	2,169.00	174.67
Sweden.....	do.	107,916	2,099.00	179.86
Do.....	do.	108,156	1,848.00	180.26
Germany.....	Dec. 19, 1907	148,838	2,578.00	248.06
Norway.....	do.	52,591	928.00	87.65
Sweden.....	Dec. 30, 1907	54,522	310.00	90.87
Do.....	do.	164,198	3,125.00	273.66
Do.....	Jan. 6, 1908	1,046,452	18,527.00	1,744.09
Germany.....	do.	62,633	1,222.00	104.39
Do.....	do.	65,204	1,351.00	108.67
Norway.....	do.	224,855	3,785.00	374.76
Germany.....	do.	61,946	1,250.00	103.24
Russia.....	Jan. 11, 1908	154,937	2,575.00	258.23
Germany.....	Jan. 27, 1908	94,800	1,897.00	158.00

Statement showing importations of wood pulp, filter masse, printing paper, and pulp woods at the port of Boston for the period from January 1, 1907, to June 1, 1908—Continued.

CHEMICAL WOOD PULP, UNBLEACHED—Continued.

Country of origin.	Date.	Quantity.	Value.	Duty collected.
		<i>Pounds.</i>		
Norway.....	Jan. 27, 1908	56,340	\$936.00	\$93.00
Sweden.....	do.....	335,953	6,661.00	660.00
Russia.....	Feb. 1, 1908	110,281	1,905.00	183.80
Sweden.....	Feb. 3, 1908	44,375	827.00	73.96
Germany.....	do.....	182,077	3,718.00	304.01
Sweden.....	do.....	163,431	3,128.00	282.39
Do.....	do.....	41,066	742.00	68.44
Do.....	Feb. 6, 1908	581,177	9,478.00	998.63
Russia.....	do.....	144,422	2,936.00	240.57
Norway.....	Feb. 14, 1908	219,296	4,497.00	366.49
Germany.....	do.....	75,948	1,567.00	126.58
Sweden.....	do.....	64,292	1,241.00	107.15
Russia.....	Feb. 19, 1908	92,669	1,595.00	154.45
Sweden.....	do.....	44,753	873.00	74.59
Do.....	Feb. 24, 1908	218,278	4,285.00	363.80
Germany.....	do.....	386,846	6,449.00	644.89
Sweden.....	Feb. 29, 1908	99,085	703.00	165.14
Russia.....	Mar. 9, 1908	93,525	1,585.00	155.88
Germany.....	do.....	640,274	9,480.00	900.39
Sweden.....	do.....	84,010	1,613.00	140.02
Do.....	do.....	379,166	6,708.00	631.94
Germany.....	do.....	229,347	4,738.00	382.25
Sweden.....	Mar. 30, 1908	53,951	1,034.00	89.92
Do.....	do.....	219,288	4,205.00	366.10
Germany.....	Apr. 13, 1908	272,295	5,008.00	453.93
Sweden.....	do.....	221,137	4,190.00	368.56
Norway.....	do.....	109,716	1,894.00	152.96
Sweden.....	Apr. 16, 1908	214,191	3,395.00	364.99
Denmark.....	do.....	55,115	863.00	91.86
Germany.....	Apr. 21, 1908	244,004	5,007.00	406.67
Norway.....	do.....	44,092	745.00	73.49
Sweden.....	do.....	195,396	3,495.00	325.66
Do.....	Apr. 25, 1908	89,600	1,556.00	140.23
Russia.....	do.....	38,179	659.00	63.63
Sweden.....	do.....	109,246	2,147.00	182.08
Germany.....	May 7, 1908	10,093	204.00	16.82
Do.....	May 13, 1908	146,393	2,994.00	242.99
Sweden.....	do.....	120,936	2,178.00	201.55
Do.....	May 14, 1908	223,594	4,146.00	372.32
Total.....		33,258,463	604,626.00	55,539.97

CHEMICAL WOOD PULP, BLEACHED.

		<i>Pounds.</i>		
Norway.....	Jan. 21, 1907	326,169	\$8,240.00	\$815.42
Sweden.....	Jan. 25, 1907	174,746	4,089.00	436.87
Germany.....	Jan. 28, 1907	100,258	2,779.00	250.63
Sweden.....	do.....	105,167	2,727.00	262.92
Russia.....	Jan. 30, 1907	98,013	2,238.00	245.03
Germany.....	do.....	100,613	2,671.00	251.53
Norway.....	Jan. 31, 1907	1,394,721	35,177.00	3,486.80
Germany.....	Feb. 6, 1907	60,668	1,850.00	151.67
Sweden.....	Feb. 13, 1907	227,993	5,816.00	569.96
Do.....	Feb. 16, 1907	128,398	2,884.00	321.00
Do.....	Feb. 18, 1907	54,258	1,527.00	125.65
Norway.....	Feb. 25, 1907	582,978	12,919.00	1,457.45
Russia.....	Mar. 6, 1907	415,344	11,144.00	1,038.36
Germany.....	Mar. 7, 1907	193,975	5,500.00	484.94
Do.....	Mar. 13, 1907	64,378	2,697.00	190.98
Sweden.....	Mar. 14, 1907	214,202	5,049.00	535.61
Russia.....	do.....	202,980	5,589.00	507.45
Do.....	Mar. 19, 1907	41,575	1,048.00	103.94
Sweden.....	do.....	53,989	1,527.00	134.97
Germany.....	Mar. 20, 1907	148,528	4,763.00	371.32
Norway.....	Mar. 22, 1907	121,581	3,197.00	303.96
Do.....	do.....	2,095,642	58,657.00	5,239.11
Do.....	Apr. 6, 1907	122,288	2,884.00	305.72
Russia.....	Apr. 15, 1907	210,900	5,632.00	527.25
Norway.....	Apr. 16, 1907	32,285	809.00	80.71
Do.....	do.....	1,767,352	43,542.00	4,418.38
Sweden.....	Apr. 23, 1907	63,892	1,578.00	150.73
Russia.....	do.....	43,576	1,029.00	108.94

Statement showing importations of wood pulp, filter masse, printing paper, and pulp woods at the port of Boston for the period from January 1, 1907, to June 1, 1908—Continued.

CHEMICAL WOOD PULP, BLEACHED—Continued.

Country of origin.	Date.	Quantity.	Value.	Duty collected.
		<i>Pounds.</i>		
Norway.....	May 1, 1907	662,905	\$16,164.00	\$1,632.26
Do.....	do.....	50	18.00	1.40
Germany.....	May 8, 1907	24,451	826.00	83.13
Sweden.....	do.....	31,917	604.00	70.79
Do.....	May 9, 1907	96,103	2,163.00	240.26
Germany.....	May 17, 1907	111,098	3,550.00	279.25
Netherlands.....	do.....	27,445	787.00	68.61
Norway.....	May 25, 1907	64,399	1,610.00	161.00
Sweden.....	do.....	107,448	2,403.00	268.62
Norway.....	May 27, 1907	953,113	23,921.00	2,382.78
Sweden.....	June 8, 1907	62,618	1,615.00	156.55
Norway.....	June 10, 1907	52,118	1,341.00	130.30
Do.....	do.....	1,210,525	29,790.00	3,003.81
Russia.....	June 12, 1907	210,615	5,762.00	525.04
Germany.....	do.....	240,736	7,320.00	601.84
Do.....	June 24, 1907	89,821	2,280.00	230.77
Netherlands.....	June 25, 1907	66,217	1,783.00	165.54
Russia.....	do.....	106,453	2,875.00	266.13
Sweden.....	June 26, 1907	63,660	1,581.00	159.15
Germany.....	do.....	24,082	919.00	60.21
Sweden.....	July 1, 1907	63,534	1,441.00	158.84
Russia.....	July 9, 1907	109,583	2,863.00	273.96
Germany.....	do.....	234,447	5,972.00	586.12
Sweden.....	July 15, 1907	138,440	3,122.00	346.10
Do.....	July 22, 1907	63,394	1,582.00	158.50
Belgium.....	do.....	116,052	3,035.00	290.13
Russia.....	July 23, 1907	207,662	5,743.00	519.16
Sweden.....	Aug. 3, 1907	42,769	1,026.00	105.92
Do.....	Aug. 5, 1907	108,826	2,403.00	272.07
France.....	do.....	23,558	476.00	58.90
Germany.....	do.....	130,438	4,142.00	326.09
Do.....	Aug. 10, 1907	60,397	1,420.00	150.74
Sweden.....	do.....	53,900	1,310.00	234.50
Belgium.....	Aug. 12, 1907	273,007	6,743.00	684.02
Germany.....	do.....	247,632	7,570.00	619.83
Sweden.....	Aug. 26, 1907	64,796	1,525.00	161.99
Russia.....	Aug. 27, 1907	41,429	1,161.00	103.57
Sweden.....	Sept. 14, 1907	126,885	3,033.00	317.21
Do.....	Sept. 18, 1907	107,579	2,435.00	268.95
Norway.....	Sept. 25, 1907	438,457	11,420.00	1,096.14
Sweden.....	Sept. 28, 1907	52,006	1,527.00	130.77
Russia.....	do.....	314,745	8,622.00	786.86
Sweden.....	Oct. 5, 1907	51,890	1,500.00	129.73
Norway.....	Oct. 7, 1907	413,555	11,046.00	1,033.89
Sweden.....	Oct. 16, 1907	54,226	1,218.00	135.57
Do.....	Oct. 28, 1907	127,373	3,074.00	318.43
Norway.....	Nov. 4, 1907	696,380	17,181.00	1,741.20
Germany.....	do.....	49,959	1,388.00	124.90
Russia.....	Nov. 5, 1907	274,133	7,540.00	685.33
Germany.....	Nov. 12, 1907	20,325	528.00	50.81
Norway.....	Nov. 25, 1907	1,512,047	37,877.00	3,780.12
Sweden.....	Nov. 26, 1907	128,806	2,927.00	322.02
Do.....	Nov. 29, 1907	124,762	2,952.00	311.91
Germany.....	do.....	284,731	7,381.00	711.83
Do.....	Dec. 3, 1907	314,685	7,381.00	786.71
Russia.....	Dec. 4, 1907	83,400	2,305.00	208.50
Sweden.....	Dec. 9, 1907	107,221	3,054.00	268.05
Germany.....	do.....	37,299	1,065.00	93.25
Sweden.....	Dec. 16, 1907	73,400	1,706.00	183.50
Norway.....	Dec. 17, 1907	1,438,610	38,402.00	3,696.53
Sweden.....	Dec. 19, 1907	132,276	3,055.00	330.69
Do.....	Dec. 30, 1907	106,668	3,054.00	266.67
Russia.....	Jan. 3, 1908	437,841	12,142.00	1,094.60
Norway.....	Jan. 6, 1908	1,843,527	46,527.00	4,606.80
Sweden.....	Jan. 11, 1908	219,363	5,402.00	548.41
Germany.....	Jan. 14, 1908	40,094	1,199.00	100.24
Norway.....	Jan. 27, 1908	656,749	16,951.00	1,641.87
Germany.....	Feb. 3, 1908	289,910	8,671.00	724.78
Russia.....	Feb. 6, 1908	408,511	11,717.00	1,021.28
Germany.....	Feb. 11, 1908	186,223	5,853.00	465.56
Norway.....	Feb. 14, 1908	1,341,061	33,692.00	3,352.55
Do.....	do.....	48,738	1,329.00	121.85
Germany.....	Feb. 24, 1908	109,446	2,676.00	273.62
Sweden.....	Feb. 29, 1908	90,389	2,133.00	225.97
Norway.....	Mar. 9, 1908	845,316	22,259.00	2,113.29
Do.....	do.....	20,333	578.00	50.83

Statement showing importations of wood pulp, filter masse, printing paper, and pulp woods at the port of Boston for the period from January 1, 1907, to June 1, 1908—Continued.

CHEMICAL WOOD PULP, BLEACHED—Continued.

Country of origin.	Date.	Quantity.	Value.	Duty collected.
		<i>Pounds.</i>		
Sweden.....	Mar. 14, 1908	94,012	\$2,133.00	\$235.03
Germany.....	Mar. 23, 1908	55,972	1,867.00	130.93
Do.....	Apr. 9, 1908	56,603	1,763.00	141.51
Do.....	Apr. 13, 1908	57,451	1,331.00	143.63
Do.....	Apr. 21, 1908	57,581	1,761.00	143.95
Norway.....	.....do.....	48,358	1,329.00	120.90
Do.....	.....do.....	1,087,468	28,136.00	2,718.67
Germany.....	May 4, 1908	109,816	3,418.00	274.54
Sweden.....	May 9, 1908	164,557	4,049.00	411.39
Russia.....	May 13, 1908	512,141	14,598.00	1,280.35
Total.....		31,184,193	815,324.00	78,036.33

FILTER MASSE OR FILTER STOCK.

		<i>Pounds.</i>		
Germany.....	Feb. 6, 1907	2,205	\$263.00	\$72.53
Do.....	June 25, 1907	2,205	256.00	71.48
Do.....	Oct. 18, 1907	1,102	162.00	40.83
Total.....		5,512	681.00	184.84

PRINTING PAPER.

		<i>Pounds.</i>		
England.....	Feb. 1, 1907	10,785	\$755.00	\$113.25
Do.....	Feb. 18, 1907	21,784	1,512.00	226.80
Do.....	Feb. 23, 1907	1,789	125.00	18.75
Do.....	Mar. 25, 1907	600	232.00	34.80
Do.....	Apr. 2, 1907	2,400	143.00	21.46
Do.....	Apr. 4, 1907	4,587	232.00	34.65
Belgium.....	Apr. 5, 1907	31,607	1,458.00	252.86
England.....	May 20, 1907	9,821	721.00	108.15
Do.....	June 3, 1907	28,911	2,188.00	328.20
Do.....	June 14, 1907	707	72.00	10.80
Do.....	Aug. 30, 1907	20,860	1,461.00	219.15
Scotland.....	Oct. 1, 1907	1,891	79.00	15.13
England.....	Oct. 5, 1907	2,530	366.00	54.90
Do.....	Oct. 31, 1907	1,950	156.00	20.79
Do.....	.....do.....	1,187	95.00	14.25
Do.....	Nov. 4, 1907	293	25.00	11.08
Do.....	Jan. 25, 1908	4,788	784.00	285.18
Do.....	Feb. 20, 1908	360	27.00	4.05
Do.....	Mar. 6, 1908	2,075	96.00	16.60
Do.....	Mar. 30, 1908	12,793	897.00	134.58
Do.....	Apr. 6, 1908	3,478	665.00	99.75
Do.....	Apr. 22, 1908	20,677	1,447.00	217.05
Total.....		191,873	13,538.00	2,242.19

No pulp wood was imported.

No additional duties collected during the period from January 1, 1907, to June 1, 1908, on importations under paragraphs 393 or 396 of the tariff act of 1897.

PORT OF BANGOR, ME.

Importations from New Brunswick at Bangor, Me., from January 1, 1907, to June 1, 1908.

GROUND WOOD PULP.

Date.	Entry No.	Quantity.	Value.	Duty.	Date.	Entry No.	Quantity.	Value.	Duty.
1907.		<i>Pounds.</i>			1907.		<i>Pounds.</i>		
Sept. 21	2484	30,000	\$225.00	\$25.00	Oct. 22	3525	30,000	\$225.00	\$25.00
Oct. 1	2789	20,000	150.00	16.67	Oct. 28	3801	50,000	\$75.00	41.67
8	3010	20,000	150.00	16.67	28	3807	30,000	225.00	25.00
9	3042	30,000	225.00	25.00	Nov. 15	4707	30,000	225.00	25.00
10	3083	30,000	225.00	25.00	19	4931	30,000	225.00	25.00
12	3151	29,400	221.00	24.50					
16	3311	30,000	225.00	25.00	1908.				
17	3332	49,000	368.00	40.83	Jan. 13	7945	30,000	225.00	25.00
19	3430	30,000	225.00	25.00	Total	.....	498,400	3,739.00	415.84
19	3507	30,000	225.00	25.00					

CHEMICAL PULP, UNBLEACHED.

Date.	Entry No.	Quantity.	Value.	Duty.	Date.	Entry No.	Quantity.	Value.	Duty.
1907.		<i>Pounds.</i>			1907.		<i>Pounds.</i>		
Jan. 1	6508	28,267	\$823.00	\$63.78	Feb. 2	8539	44,800	\$941.00	\$74.67
3	6587	55,030	1,183.00	91.72	2	8540	39,160	775.00	66.27
3	6588	54,756	1,096.00	91.26	4	8651	55,097	1,102.00	91.83
5	6699	111,728	2,123.00	186.21	4	8652	54,209	1,084.00	90.35
6	6700	38,006	734.00	64.34	4	8653	37,240	782.00	62.07
7	6775	186,769	3,548.00	311.27	5	8670	109,096	2,075.00	181.83
7	6777	75,670	1,438.00	126.12	5	8681	38,297	738.00	63.83
7	6778	45,578	1,167.00	92.63	6	8703	72,228	1,372.00	120.38
7	6779	48,720	1,121.00	81.20	6	8704	36,914	701.00	61.52
7	6780	46,929	915.00	78.22	6	8705	36,729	698.00	61.22
7	6781	38,754	698.00	61.26	8	8894	76,396	1,757.00	127.33
7	6782	36,019	684.00	60.03	11	9012	46,872	914.00	78.12
7	6881	53,250	1,065.00	88.75	11	9016	106,660	2,027.00	177.77
7	6832	38,473	731.00	64.12	11	9067	74,941	1,424.00	124.90
7	6833	37,738	717.00	62.90	11	9068	37,820	719.00	63.03
7	6834	37,520	807.00	62.53	11	9069	37,636	715.00	62.73
10	7040	58,178	1,134.00	96.06	11	9070	37,429	711.00	62.38
10	7041	55,167	1,103.00	91.95	11	9071	37,078	704.00	61.80
10	7042	37,466	712.00	62.43	12	9127	58,913	1,149.00	98.19
10	7043	35,662	678.00	59.44	12	9128	37,986	760.00	63.31
11	7093	37,844	719.00	63.07	13	9163	55,646	1,113.00	92.74
11	7094	37,734	717.00	62.89	13	9164	50,524	1,010.00	84.21
11	7095	37,411	711.00	62.35	13	9165	37,847	757.00	63.08
12	7139	54,209	1,084.00	90.35	15	9259	108,723	2,066.00	181.21
12	7140	52,071	1,063.00	86.79	15	9261	44,912	943.00	74.85
12	7141	36,693	697.00	61.16	15	9262	35,788	680.00	59.65
14	7189	54,893	1,153.00	91.49	15	9341	53,658	1,046.00	89.43
14	7190	49,280	1,060.00	82.13	15	9342	50,520	1,010.00	84.21
14	7191	40,491	769.00	67.49	15	9343	50,275	1,005.00	83.79
14	7192	38,200	728.00	63.82	18	9475	50,462	1,080.00	84.10
14	7193	38,067	723.00	63.45	18	9554	71,554	1,360.00	119.26
14	7194	36,653	696.00	61.09	18	9555	35,789	680.00	59.65
14	7286	51,558	1,531.00	152.60	18	9556	35,370	672.00	58.95
14	7287	37,211	707.00	62.02	18	9557	34,137	649.00	56.90
14	7319	37,712	717.00	62.85	19	9564	73,785	1,402.00	122.98
17	7442	75,763	1,439.00	126.27	19	9565	37,420	711.00	62.37
17	7443	57,102	1,142.00	95.17	19	9566	36,351	691.00	60.59
18	7520	54,551	1,146.00	90.92	19	9567	35,530	675.00	59.22
18	7521	44,017	946.00	73.36	19	9568	34,567	657.00	57.61
21	7721	57,493	1,121.00	95.82	20	9591	37,212	707.00	62.02
21	7722	54,482	1,144.00	90.80	20	9592	36,260	689.00	60.43
21	7723	44,352	887.00	73.92	25	9753	67,044	1,307.00	111.74
21	7724	37,472	712.00	62.45	25	9784	67,493	1,121.00	95.82
21	7773	56,672	1,105.00	94.45	25	9842	55,167	1,103.00	91.95
21	7774	53,661	1,154.00	89.44	25	9843	50,586	1,012.00	84.31
24	7964	53,592	1,072.00	89.32	25	9844	38,303	806.00	63.86
25	8070	54,140	1,083.00	90.23	26	9858	63,544	1,279.00	105.91
25	8071	28,042	722.00	63.40	26	9859	37,893	758.00	63.16
28	8183	37,931	721.00	63.22	Mar. 1	9916	28,453	769.00	64.00
28	8184	37,736	717.00	62.89	1	9917	26,501	694.00	60.84
28	8185	37,636	715.00	62.73	1	9918	26,070	685.00	60.12
28	8186	37,474	712.00	62.46	2	9997	37,608	715.00	62.68
28	8187	36,559	695.00	60.93	4	10030	112,878	2,145.00	188.13
28	8228	51,876	1,038.00	86.46	4	10034	58,452	1,140.00	97.42
28	8229	46,929	915.00	78.22	4	10035	55,646	1,113.00	92.74
28	8230	43,062	926.00	71.75	4	10036	36,373	691.00	60.02
28	8231	28,578	772.00	64.30	4	10056	37,893	796.00	63.16

Importations from New Brunswick at Bangor, Me., from January 1, 1907, to June 1, 1908—Continued.

CHEMICAL PULP, UNBLEACHED—Continued.

Date.	Entry No.	Quantity.	Value.	Duty.	Date.	Entry No.	Quantity.	Value.	Duty.
		Pounds.					Pounds.		
1907.					1907.				
Mar.	4	10067	36,450	\$793.00	22	11826	36,150	\$957.00	\$90.25
	4	10068	36,268	689.00	22	11827	34,978	665.00	58.30
	4	10069	35,646	677.00	23	11589	28,264	727.00	63.77
	6	10063	35,158	668.00	25	11688	44,969	877.00	74.95
	6	10135	215,971	4,103.00	25	11689	37,240	745.00	62.07
	6	10139	36,764	699.00	25	11690	37,057	704.00	61.76
	8	10163	35,558	676.00	25	11691	34,925	664.00	58.21
	9	10181	40,413	788.00	27	11773	51,799	1,035.00	86.28
	11	10227	35,524	675.00	27	11774	46,200	970.00	77.00
	12	10253	145,016	2,753.00	27	11776	38,267	804.00	63.78
	12	10264	49,990	1,000.00	29	11820	109,859	2,087.00	183.10
	12	10255	37,061	704.00	29	11821	108,776	2,065.00	181.29
	12	10256	35,998	684.00	29	11822	38,280	727.00	63.77
	12	10269	56,330	1,127.00	29	11864	51,520	1,030.00	85.67
	13	10270	56,715	1,114.00	2	12001	53,386	1,041.00	88.98
	13	10271	36,799	699.00	2	12002	51,769	1,035.00	86.28
	13	10272	36,173	687.00	2	12003	42,659	853.00	71.10
	14	10293	35,681	678.00	3	12032	56,125	1,123.00	93.54
	14	10294	24,216	450.00	3	12033	49,240	1,034.00	82.07
	14	10295	24,007	446.00	6	12105	35,763	679.00	59.61
	14	10296	33,732	641.00	6	12107	35,554	676.00	59.26
	16	10365	38,500	809.00	6	12108	35,118	667.00	58.53
	18	10392	38,453	808.00	6	12109	34,901	663.00	58.17
	18	10397	37,704	792.00	6	12134	48,708	974.00	81.18
	18	10398	36,520	694.00	6	12135	38,967	779.00	64.95
	18	10399	36,254	689.00	6	12136	38,873	875.00	64.79
	19	10430	106,314	2,020.00	6	12137	38,827	815.00	64.71
	19	10431	70,770	1,345.00	6	12138	35,589	676.00	59.32
	20	10445	48,552	947.00	6	12175	177,738	3,374.00	296.23
	22	10482	37,847	795.00	6	12176	34,993	665.00	58.32
	25	10536	69,395	1,319.00	9	12243	37,800	794.00	63.06
	25	10537	38,173	763.00	9	12283	69,562	1,322.00	115.94
	25	10575	54,258	1,058.00	9	12284	63,156	1,326.00	105.26
	25	10576	38,080	800.00	9	12285	53,200	1,037.00	88.67
	25	10577	35,912	682.00	9	12286	51,084	1,022.00	85.14
	25	10578	35,218	669.00	9	12287	45,297	974.00	75.50
	26	10594	38,173	763.00	9	12288	38,127	763.00	63.55
	26	10595	38,033	761.00	11	12335	39,760	775.00	66.27
	27	10631	41,259	784.00	13	12367	55,987	1,120.00	93.31
	27	10633	34,949	653.00	13	12368	55,509	1,110.00	92.82
	28	10672	70,831	1,348.00	13	12389	50,275	1,006.00	83.79
	28	10674	38,593	772.00	14	12399	135,719	2,579.00	226.20
	28	10675	36,717	680.00	14	12400	37,707	735.00	62.85
	28	10696	36,118	686.00	16	12482	36,173	763.00	63.66
	29	10716	38,547	809.00	16	12495	56,193	1,124.00	93.68
	30	10745	38,173	809.00	16	12496	38,640	850.00	64.40
Apr.	4	10874	34,677	1,419.00	16	12497	38,640	811.00	64.40
	4	10875	38,593	772.00	17	12527	38,453	806.00	64.09
	6	10821	48,009	945.00	18	12560	105,818	1,972.00	173.03
	6	10838	43,528	914.00	18	12561	72,872	1,355.00	121.45
	6	10839	35,773	680.00	20	12577	54,209	1,084.00	90.35
	8	10873	108,032	2,053.00	20	12579	37,567	759.00	62.61
	8	10874	38,407	807.00	20	12617	69,231	1,175.00	100.39
	8	11003	107,705	2,046.00	20	12618	37,147	836.00	61.91
	8	11004	40,569	811.00	21	12643	60,027	1,170.00	100.05
	8	11006	38,173	802.00	21	12644	41,136	782.00	68.56
	8	11006	35,041	636.00	21	12645	35,372	672.00	58.95
	9	11019	35,854	681.00	23	12721	50,524	1,061.00	84.21
	10	11068	56,262	1,125.00	24	12739	50,432	1,061.00	84.21
	10	11069	46,312	926.00	24	12740	50,432	1,060.00	84.10
	10	11070	41,416	828.00	24	12741	37,427	736.00	62.38
	10	11071	36,618	696.00	25	12797	109,352	2,078.00	183.25
	10	11072	35,028	677.00	25	12798	38,080	838.00	63.47
	12	11127	60,573	1,181.00	25	12799	37,973	721.00	63.29
	12	11128	47,039	929.00	26	12800	37,868	719.00	63.11
	12	11129	45,570	911.00	27	12817	38,033	799.00	63.39
	12	11130	39,060	781.00	27	12838	53,934	1,133.00	98.99
	12	11131	36,096	697.00	27	12839	37,753	783.00	62.92
	12	11151	35,538	675.00	29	12904	54,756	1,067.00	91.25
	13	11166	37,796	718.00	29	12905	41,191	753.00	65.65
	15	11242	50,779	1,016.00	29	12906	89,070	1,742.00	155.12
	15	11261	148,960	2,830.00	29	12907	37,707	830.00	63.65
	18	11381	35,547	80.00	29	12908	37,707	792.00	62.65
	20	11493	39,946	779.00	29	12909	35,982	692.00	60.93
	20	11494	38,080	762.00	29	12910	34,194	650.00	58.99
	22	11532	75,583	1,442.00	29	12912	28,302	538.00	47.17
	22	11524	38,733	775.00	30	12944	40,204	764.00	67.01
	22	11525	38,640	773.00	31	12978	31,106	591.00	51.84

Importations from New Brunswick at Bangor, Me., from January 1, 1907, to June 1, 1908—Continued.

CHEMICAL PULP, UNBLEACHED—Continued.

Date.	Entry No.	Quantity.	Value.	Duty.	Date.	Entry No.	Quantity.	Value.	Duty.
1907.		<i>Pounds.</i>			1907.		<i>Pounds.</i>		
May 31	13003	54,551	\$1,091.00	\$90.92	July 1	37	37,707	\$792.00	\$62.85
31	13004	31,949	607.00	53.25	1	38	37,147	799.00	61.91
June 1	13021	54,893	1,180.00	91.49	3	107	29,517	561.00	49.20
1	13022	53,661	1,127.00	86.44	4	138	30,317	576.00	50.53
1	13023	30,423	579.00	50.71	5	180	55,988	1,092.00	93.31
3	13069	55,440	1,164.00	92.40	5	183	33,509	637.00	55.85
3	13070	55,504	675.00	59.17	6	210	62,533	1,251.00	104.22
3	13071	33,349	634.00	55.58	6	211	37,893	758.00	63.16
3	13082	37,893	834.00	63.16	6	212	37,100	798.00	61.83
3	13083	33,746	641.00	56.24	8	246	58,885	1,129.00	98.14
3	13084	30,040	571.00	50.07	7	247	53,704	1,047.00	86.51
4	13104	31,826	605.00	53.04	7	248	49,201	984.00	82.00
4	13105	31,590	600.00	52.65	9	280	117,712	2,342.00	196.19
5	13126	33,096	629.00	56.16	9	281	55,987	1,232.00	93.31
6	13184	57,289	1,117.00	95.48	10	313	31,281	594.00	52.14
6	13185	55,720	1,114.00	92.87	12	381	54,766	1,095.00	91.26
6	13186	49,778	996.00	82.96	12	382	36,827	710.00	61.88
7	13254	72,320	1,374.00	120.53	12	385	30,803	585.00	51.34
7	13255	55,714	1,114.00	92.86	12	388	27,331	519.00	46.55
7	13256	55,030	1,101.00	91.72	12	417	70,776	1,344.00	117.96
7	13257	37,520	788.00	62.53	13	418	55,987	1,092.00	93.31
7	13259	35,507	675.00	56.18	13	419	54,755	1,095.00	91.26
8	13305	143,015	2,755.00	241.09	13	420	54,346	1,168.00	90.58
8	13306	102,157	1,941.00	170.26	15	443	61,911	1,362.00	103.19
10	13336	980	20.00	* 1.63	15	444	56,467	1,101.00	94.11
10	13337	54,256	1,085.00	90.43	15	445	32,073	609.00	53.46
10	13388	38,033	799.00	63.3*	15	470	60,213	1,105.00	83.69
11	13412	32,459	617.00	54.10	16	485	112,341	2,232.00	187.24
11	13413	99,067	1,312.00	115.11	16	488	37,893	853.00	63.16
12	13452	36,493	786.00	60.82	17	515	62,611	1,252.00	104.35
13	13472	29,274	556.00	48.79	17	516	56,193	1,096.00	93.66
14	13502	28,080	800.00	63.47	17	517	37,893	796.00	63.16
14	13503	28,173	821.00	63.62	18	545	73,904	1,404.00	123.17
14	13504	25,756	679.00	59.59	18	546	54,619	1,174.00	91.03
14	13504	33,250	632.00	55.42	18	548	37,940	797.00	63.23
14	13505	31,682	602.00	52.80	18	549	37,526	713.00	62.64
15	13569	61,661	1,268.00	102.77	19	587	55,440	1,109.00	92.40
15	13570	37,986	741.00	63.31	20	624	61,755	1,297.00	102.93
15	13572	37,427	786.00	62.38	20	626	54,961	1,099.00	91.00
15	13573	37,240	782.00	62.07	20	627	54,619	1,092.00	91.03
15	13574	24,182	649.00	56.97	22	701	54,893	1,070.00	91.49
17	13624	55,303	1,106.00	92.17	22	702	54,551	1,091.00	90.92
17	13650	64,011	1,248.00	106.69	23	715	50,897	993.00	84.83
17	13651	49,467	989.00	82.45	24	739	35,342	672.00	58.90
17	13652	37,986	798.00	63.31	26	812	55,790	1,116.00	92.98
17	13653	37,660	753.00	62.77	26	816	36,344	691.00	60.57
20	13730	55,030	1,101.00	91.72	26	817	35,591	676.00	56.32
20	13731	37,707	754.00	62.85	27	854	107,837	2,048.00	179.73
21	13787	68,706	1,305.00	114.51	27	856	54,619	1,065.00	91.03
21	13788	28,287	765.00	63.78	27	857	49,902	998.00	83.17
21	13789	37,893	796.00	63.18	27	858	49,529	1,040.00	82.55
21	13790	37,637	715.00	62.73	27	861	36,400	783.00	60.67
22	13862	60,160	1,314.00	115.27	29	887	62,378	1,310.00	103.99
22	13863	55,578	1,112.00	92.63	29	888	49,778	1,045.00	82.96
22	13864	32,811	623.00	54.69	29	889	37,632	715.00	62.72
24	13898	237,150	4,505.00	395.25	29	890	36,353	691.00	60.59
24	13899	36,529	694.00	60.88	29	891	35,623	677.00	56.37
24	13945	37,707	792.00	62.85	29	892	35,052	666.00	58.42
25	13956	63,001	1,198.00	105.00	29	925	37,427	730.00	62.38
25	13957	28,033	761.00	63.39	30	943	249,885	4,748.00	416.48
25	13958	37,893	796.00	63.16	30	944	55,030	1,156.00	91.72
26	14009	55,303	1,106.00	92.17	30	945	54,756	1,095.00	91.26
26	14010	37,427	805.00	62.38	Aug. 2	1023	54,619	1,065.00	91.03
26	14011	31,680	602.00	52.80	2	1024	53,312	1,039.00	88.85
27	14063	59,988	1,091.00	93.31	2	1025	49,166	983.00	81.93
28	14064	37,707	792.00	62.85	2	1045	36,138	687.00	60.23
29	14124	55,303	1,106.00	92.17	5	1109	54,209	1,084.00	90.35
29	14125	45,192	904.00	75.32	5	1110	50,027	1,051.00	83.38
29	14126	44,318	864.00	73.86	5	1143	72,399	1,376.00	120.67
29	14127	37,613	752.00	62.69	5	1144	35,938	683.00	59.90
July 1	5	31,107	591.00	51.85	6	1165	63,729	1,155.00	89.55
1	31	64,038	1,216.00	106.73	6	1166	50,275	1,056.00	83.79
1	32	63,895	1,314.00	106.49	8	1232	66,816	1,193.00	94.69
1	33	55,303	1,161.00	92.17	8	1234	37,380	841.00	62.30
1	34	55,167	1,159.00	91.95	9	1262	141,774	2,694.00	236.29
1	35	37,893	796.00	63.16	10	1327	54,756	1,205.00	91.26
1	36	37,893	796.00	63.16	10	1328	54,551	1,091.00	90.92

* Increase.

Importations from New Brunswick at Bangor, Me., from January 1, 1907, to June 1, 1908—Continued.

CHEMICAL PULP, UNBLEACHED—Continued.

Date.	Entry No.	Quantity.	Value.	Duty.	Date.	Entry No.	Quantity.	Value.	Duty.
1907.		<i>Pounds.</i>			1907.		<i>Pounds.</i>		
Aug. 12	1351	55,578	\$1,084.00	\$92.63	Sept. 23	2551	36,576	\$701.00	\$61.46
12	1352	52,397	1,048.00	87.33	25	2553	53,534	1,079.00	89.89
12	1353	37,014	884.00	62.69	26	2554	45,782	976.00	81.30
12	1354	35,758	690.00	59.65	26	2555	36,960	739.00	61.60
12	1377	147,893	2,813.00	246.49	27	2601	49,902	973.00	83.17
12	1379	36,400	783.00	60.67	27	2604	36,773	735.00	61.29
13	1411	37,272	708.00	62.12	28	2601	36,576	701.00	61.46
13	1412	37,147	780.00	61.91	28	2602	36,800	700.00	61.23
13	1413	36,084	685.00	60.06	28	2603	36,650	734.00	61.13
15	1465	54,209	1,084.00	90.35	28	2604	36,319	690.00	60.53
15	1466	26,867	774.00	61.45	30	2738	53,524	1,124.00	89.21
16	1487	37,749	717.00	62.92	30	2742	37,209	707.00	62.02
17	1519	53,387	1,008.00	88.98	Oct. 2	2821	73,484	1,395.00	122.47
17	1520	48,347	943.00	80.54	2	2822	37,427	785.00	62.38
19	1546	56,969	1,139.00	94.93	2	2825	37,230	707.00	62.05
19	1572	160,410	2,858.00	250.08	2	2859	60,978	1,280.00	101.63
19	1573	76,511	1,450.00	127.52	2	2860	60,278	1,206.00	100.46
20	1589	49,404	963.00	82.34	5	2915	37,053	778.00	61.76
21	1615	54,209	1,193.00	90.35	5	2916	36,960	721.00	61.60
21	1617	37,147	780.00	61.91	7	2966	53,250	1,065.00	88.75
22	1650	76,759	1,459.00	127.93	7	2967	36,960	832.00	61.60
23	1685	148,987	2,831.00	248.31	7	2968	36,493	730.00	60.82
23	1687	37,240	782.00	62.07	7	2969	36,400	764.00	60.67
24	1726	54,209	1,057.00	90.35	9	3030	73,006	1,387.00	121.68
26	1756	37,713	717.00	62.86	9	3031	71,994	1,367.00	119.90
26	1757	37,007	703.00	61.68	9	3032	54,209	1,057.00	90.35
26	1790	36,962	684.00	59.94	10	3074	37,193	781.00	61.99
26	1797	53,044	1,114.00	88.41	12	3143	53,867	1,131.00	89.78
27	1800	53,260	1,066.00	88.75	12	3144	53,259	1,118.00	88.77
27	1801	51,813	1,088.00	86.36	14	3195	53,729	1,075.00	89.55
27	1803	36,727	771.00	61.21	14	3196	53,661	1,127.00	89.64
31	1915	74,704	1,419.00	124.51	14	3197	50,633	1,013.00	84.29
31	1916	56,887	1,262.00	94.81	16	3228	48,036	1,009.00	80.06
31	1917	37,100	742.00	61.63	16	3309	53,396	1,068.00	88.98
Sept. 31	1918	36,587	768.00	60.98	18	3345	55,967	1,119.00	93.26
2	1931	76,498	1,453.00	127.48	18	3346	52,840	1,057.00	88.07
2	1932	57,746	1,155.00	96.24	18	3347	49,280	961.00	82.13
2	1933	41,518	830.00	69.20	18	3378	35,590	693.00	59.27
2	1934	37,941	721.00	63.24	18	3380	34,448	647.00	57.41
2	1935	37,247	708.00	62.08	18	3381	33,073	630.00	55.12
2	1936	36,680	715.00	61.13	19	3415	184,563	3,073.00	207.59
6	2006	110,632	2,102.00	184.39	19	3419	74,221	1,237.00	123.70
6	2067	37,711	716.00	62.86	19	3420	71,205	1,355.00	118.66
6	2068	37,314	709.00	62.19	19	3421	61,133	1,223.00	101.89
7	2102	37,792	718.00	62.99	19	3422	60,278	1,208.00	100.46
9	2128	111,603	2,120.00	186.01	19	3423	35,664	680.00	59.47
9	2161	37,240	782.00	62.07	19	3479	137,723	2,267.00	229.54
10	2176	37,053	741.00	61.76	19	3504	53,250	1,065.00	88.75
10	2177	36,811	699.00	61.35	21	3454	53,797	1,049.00	89.66
11	2206	38,316	728.00	63.86	21	3455	24,621	668.00	57.70
11	2208	36,172	687.00	60.29	22	3524	60,045	1,201.00	100.06
12	2233	73,874	1,404.00	123.12	22	3525	58,661	1,126.00	89.44
12	2234	37,302	709.00	62.17	22	3526	36,960	776.00	61.60
12	2235	37,059	704.00	61.76	24	3608	60,822	1,277.00	101.37
12	2236	36,068	685.00	60.11	24	3609	53,113	1,062.00	88.52
16	2309	54,961	1,099.00	91.60	24	3611	36,690	770.00	61.13
16	2311	38,328	728.00	63.88	24	3615	24,113	603.00	56.86
19	2426	77,091	1,465.00	128.49	25	3647	63,637	1,094.00	105.90
19	2427	38,013	722.00	63.36	25	3648	62,840	1,110.00	88.07
19	2428	37,810	718.00	63.02	26	3668	165,686	2,722.00	276.14
20	2449	54,619	1,092.00	91.03	26	3691	36,867	774.00	61.45
20	2450	38,817	738.00	64.70	26	3692	36,773	772.00	61.29
20	2451	38,173	850.00	63.62	26	3693	36,120	722.00	60.20
20	2452	37,822	719.00	63.04	26	3698	32,548	630.00	54.25
20	2453	37,427	786.00	62.38	28	3798	66,308	1,084.00	110.51
20	2454	37,333	784.00	62.22	28	3800	33,076	540.00	55.13
20	2455	36,913	701.00	61.52	29	3839	103,924	2,182.00	173.21
20	2456	36,595	695.00	60.99	29	3840	49,031	956.00	81.72
23	2515	73,871	1,404.00	123.12	30	3887	36,773	772.00	61.29
23	2517	49,290	961.00	82.13	Nov. 1	3987	53,113	1,115.00	89.52
23	2519	38,518	732.00	64.20	1	3989	36,960	721.00	61.60
23	2520	36,764	706.00	61.27	1	3990	36,967	774.00	61.45
23	2547	53,867	1,077.00	89.78	2	4026	53,250	1,065.00	88.75
23	2548	39,412	749.00	65.69	4	4080	139,906	2,449.00	233.18
23	2549	39,243	746.00	65.41	4	4122	50,102	1,062.00	83.50
23	2550	37,489	711.00	62.40	5	4146	105,962	2,119.00	176.50
					5	4151	35,747	781.00	69.58

Importations from New Brunswick at Bangor, Me., from January 1, 1907, to June 1, 1908—Continued.

CHEMICAL PULP, UNBLEACHED—Continued.

Date.	Entry No.	Quantity.	Value.	Duty.	Date.	Entry No.	Quantity.	Value.	Duty.
		Pounds.					Pounds.		
1907.					1907.				
Nov.	6	4178	\$3,387	\$1,068.00	Dec.	21	6594	\$1,304.00	\$123.41
	8	4304	201,089	3,598.00		21	6595	36,946	651.00
	8	4306	55,440	1,081.00		21	6641	37,406	669.00
	8	4307	53,113	1,062.00		23	6703	68,103	1,191.00
	8	4308	35,732	635.00		23	6704	53,798	1,075.00
	9	4350	35,940	717.00		23	6903	75,411	1,298.00
	11	4407	36,027	721.00		23	6804	56,672	1,190.00
	11	4450	64,482	1,062.00		23	6905	56,387	1,184.00
	12	4485	106,819	1,874.00		23	6806	55,657	1,119.00
	12	4486	36,400	728.00		23	6907	55,671	1,113.00
	13	4543	54,071	1,081.00		23	6908	54,346	1,141.00
	13	4544	63,034	1,133.00		23	6909	50,969	1,019.00
	14	4628	63,524	1,070.00		25	6863	108,005	2,208.00
	14	4629	83,319	1,066.00		25	6865	43,934	1,098.00
	14	4659	50,438	1,009.00		26	7090	53,934	1,066.00
	14	4663	36,880	770.00		28	7091	53,798	1,076.00
	15	4700	139,997	2,314.00		30	7171	74,573	1,318.00
	15	4701	104,035	1,818.00					
	16	4736	57,388	1,119.00	1908.				
	16	4737	55,385	1,118.00	Jan.	2	7311	57,674	1,182.00
	16	4738	51,222	1,024.00		2	7313	26,058	541.00
	18	4858	36,773	735.00		4	7379	57,531	1,179.00
	18	4896	62,463	1,023.00		4	7380	67,388	1,168.00
	18	4897	36,213	724.00		6	7410	67,102	1,171.00
	19	4921	36,307	726.00		7	7492	67,102	1,171.00
	19	4922	58,092	1,132.00		8	7504	55,671	1,113.00
	21	5006	51,469	1,004.00		8	7506	37,147	636.00
	23	5113	39,311	702.00		9	7687	58,103	1,182.00
	23	5114	58,533	1,141.00		9	7658	56,672	1,190.00
	23	5120	58,390	1,139.00		11	7820	74,164	1,306.00
	23	5121	56,950	832.00		11	7821	37,166	654.00
	25	5213	77,390	1,369.00		16	8156	54,756	1,122.00
	25	5214	58,032	1,132.00		16	8158	35,323	630.00
	25	5215	38,393	679.00		20	8373	55,406	1,099.00
	27	5316	37,679	663.00		24	8994	52,429	1,049.00
	28	5376	36,127	642.00		24	8707	66,387	1,155.00
	28	5377	58,103	1,133.00		27	8866	55,957	1,203.00
	28	5379	26,498	766.00		27	8943	50,529	1,159.00
	29	5485	53,934	1,133.00		27	8944	55,957	1,119.00
	29	5496	36,493	766.00	Feb.	1	9175	56,100	1,122.00
	30	5475	111,432	1,969.00		3	9236	55,671	1,113.00
	30	5476	54,670	1,148.00		10	9663	55,241	1,105.00
Dec.	2	5511	40,686	761.00		14	9942	60,044	1,261.00
	2	5512	38,581	681.00		14	9943	55,813	1,200.00
	2	5513	38,134	681.00		14	9944	61,222	1,059.00
	2	5554	38,438	644.00		15	9984	54,456	1,050.00
	4	5625	65,967	1,175.00		17	10022	54,812	1,178.00
	6	5687	52,842	1,110.00		17	10023	54,812	1,091.00
	6	5731	111,664	1,976.00		17	10116	35,467	709.00
	6	5733	56,529	1,187.00		17	10117	35,197	710.00
	6	5734	55,241	1,160.00		20	10287	55,671	1,141.00
	9	5867	40,459	683.00		20	10288	55,671	1,197.00
	9	5908	38,070	672.00		20	10289	55,170	1,159.00
	9	5977	39,044	708.00		20	10270	54,383	1,087.00
	9	5990	110,196	2,314.00		24	10353	56,100	1,206.00
	9	5991	58,247	1,136.00	Mar.	2	10653	111,494	2,285.00
	11	6026	108,263	2,274.00		2	10655	55,813	1,144.00
	11	6029	67,674	1,125.00		2	10656	55,528	1,111.00
	13	6186	154,438	2,631.00		2	10657	54,812	1,151.00
	13	6138	108,553	2,279.00		2	10658	54,660	1,093.00
	16	6261	61,600	1,294.00		6	10766	151,735	2,527.00
	16	6262	54,071	1,135.00		6	10768	56,357	1,156.00
	16	6263	53,661	1,127.00		6	10769	55,671	1,133.00
	16	6286	37,940	740.00		7	10795	37,452	623.00
	17	6309	75,950	1,340.00		9	10815	76,326	1,272.00
	17	6310	75,290	1,257.00		9	10842	55,957	1,119.00
	18	6341	73,610	1,290.00		9	10843	55,528	1,194.00
	18	6342	63,467	1,271.00		9	10844	55,384	1,135.00
	18	6343	38,238	683.00		9	10845	54,812	1,096.00
	18	6344	37,147	780.00		10	10863	54,954	1,099.00
	18	6345	36,968	651.00		13	10824	55,671	1,197.00
	19	6417	37,990	667.00		13	10843	145,672	2,416.00
	19	6418	37,161	655.00		14	10844	37,880	568.00
	19	6445	56,337	1,128.00		16	10969	67,565	998.00
	20	6509	53,661	1,073.00		16	10986	60,200	1,294.00
	20	6510	53,387	1,121.00		18	11051	55,528	1,130.00
						18	11052	55,241	1,132.00

Importations from New Brunswick at Bangor, Me., from January 1, 1907, to June 1, 1908—Continued.

CHEMICAL PULP, UNBLEACHED—Continued.

Date.	Entry No.	Quantity.	Value.	Duty.	Date.	Entry No.	Quantity.	Value.	Duty.
1908.		<i>Pounds.</i>			1908.		<i>Pounds.</i>		
Mar. 20	11074	26,448	\$606.00	\$60.75	Apr. 24	11968	26,120	\$722.00	\$60.20
21	11086	182,834	3,041.00	304.81	25	12011	55,241	1,132.00	92.07
23	11106	37,686	605.00	62.78	27	12075	54,812	1,178.00	91.35
24	11138	54,954	1,099.00	91.59	May 1	12210	60,044	1,291.00	100.07
24	11139	54,926	1,091.00	90.88	1	12215	36,702	616.00	61.17
25	11160	30,137	635.00	60.23	2	12239	54,954	1,099.00	91.59
28	11219	55,384	1,127.00	92.31	5	12310	55,384	1,135.00	92.31
28	11220	54,812	1,056.00	91.35	8	12398	54,669	1,093.00	91.12
28	11221	54,121	1,096.00	91.35	12	12483	54,954	1,182.00	91.59
28	11222	54,920	1,114.00	90.53	12	12484	37,488	610.00	62.45
Apr. 1	11304	54,954	1,099.00	91.59	12	12485	35,747	715.00	59.58
3	11337	55,813	1,172.00	93.02	12	12513	54,954	1,154.00	91.59
4	11364	55,839	1,258.00	99.82	12	12512	60,044	1,261.00	100.07
4	11366	30,256	635.00	60.43	13	12505	60,200	1,234.00	100.33
4	11376	55,241	1,132.00	92.07	14	12549	41,922	838.00	69.87
6	11412	55,241	1,105.00	92.07	15	12582	42,140	906.00	70.23
6	11413	55,098	1,185.00	91.83	18	12667	37,710	773.00	62.85
11	11546	56,243	1,209.00	93.74	18	12668	35,653	713.00	59.42
11.	11547	55,813	1,200.00	93.02	23	12819	55,957	1,175.00	93.26
13	11590	56,816	1,165.00	94.60	23	12820	55,384	1,108.00	92.31
13	11622	109,481	2,190.00	182.47	23	12821	55,241	1,132.00	92.07
13	11623	55,098	1,102.00	91.83	23	12822	54,954	1,154.00	91.59
13	11624	54,526	1,091.00	90.88	25	12850	55,384	1,191.00	92.31
18	11778	54,382	1,088.00	90.64	25	12851	54,812	1,096.00	91.35
20	11793	74,397	1,251.00	124.00	25	12853	36,213	724.00	60.36
20	11794	55,384	1,135.00	92.31	29	12959	148,313	2,494.00	247.19
20	11816	55,671	1,197.00	92.79	29	12960	59,422	1,188.00	99.04
20	11817	54,382	1,169.00	90.64	29	12961	55,671	1,141.00	92.79
22	11883	75,356	1,269.00	125.59	29	12962	55,528	1,166.00	92.55
23	11946	54,954	1,154.00	91.59	29	12963	54,812	1,178.00	91.35
24	11965	55,957	1,147.00	93.26					
24	11966	54,526	1,145.00	90.88					
					Grand total	....	41,588,609	824,323.00	70,021.35

No importations during the period from January 1, 1907, to June 1, 1908, of filter masse or filter stock under paragraph 395 of the tariff act of 1897.

Importations of glazed paper from Germany at Bangor, Me., from January 1, 1907, to June 1, 1908.

Date.	Entry No.	Quantity.	Value.	Duty.
1907.		<i>Bales.</i>		
February 14	9,187	17	\$361.00	\$90.25
February 15	9,200	19	407.00	101.75
Total		36	768.00	192.00

Importations of pulp wood at Bangor, Me., from January 1, 1907, to June 1, 1908.

From—	Date.	Entry No.	Quantity.	Value.	Duty.
New Brunswick	Jan. 2, 1907	6579	<i>Cords.</i> 12	\$36.00	Free.
Do.	do.	6580	12	36.00	Free.
Do.	do.	6581	12	36.00	Free.
Do.	do.	6582	12	36.00	Free.
Do.	Jan. 3, 1907	6605	12	36.00	Free.
Do.	do.	6606	12	36.00	Free.
Do.	Jan. 4, 1907	6672	12	36.00	Free.
Do.	Jan. 7, 1907	6788	12	36.00	Free.
Do.	do.	6799	12	36.00	Free.
Do.	do.	6845	10	30.00	Free.
Do.	do.	6846	12	36.00	Free.
Do.	Jan. 9, 1907	6932	15	45.00	Free.
Do.	do.	6933	12	30.00	Free.

Importations of pulp wood at Bangor, Me., from January 1, 1907, to June 1, 1908—
Continued.

From—	Date.	Entry No.	Quantity.	Value.	Duty.
			<i>Cords.</i>		
New Brunswick.....	Jan. 10, 1907	7027	10	\$30.00	Free.
Do.....	do.....	7028	10	30.00	Free.
Do.....	Jan. 11, 1907	7057	9	36.00	Free.
Do.....	do.....	7058	10	40.00	Free.
Do.....	do.....	7121	10	30.00	Free.
Do.....	do.....	7122	12	36.00	Free.
Do.....	do.....	7123	10	30.00	Free.
Do.....	Jan. 12, 1907	7163	13	39.00	Free.
Do.....	Jan. 14, 1907	7202	10	30.00	Free.
Do.....	do.....	7203	12	36.00	Free.
Do.....	do.....	7307	16 ¹ / ₂	58.00	Free.
Do.....	do.....	7308	16 ¹ / ₂	58.00	Free.
Do.....	do.....	7309	12	36.00	Free.
Do.....	do.....	7310	12	36.00	Free.
Do.....	Jan. 15, 1907	7347	10	30.00	Free.
Do.....	do.....	7348	11	33.00	Free.
Do.....	Jan. 16, 1907	7395	10	30.00	Free.
Do.....	do.....	7396	10	33.00	Free.
Do.....	Jan. 17, 1907	7460	12	36.00	Free.
Do.....	Jan. 18, 1907	7518	12	38.00	Free.
Do.....	do.....	7550	19	95.00	Free.
Do.....	Jan. 20, 1907	7618	10	50.00	Free.
Do.....	Jan. 21, 1907	7747	12	36.00	Free.
Do.....	do.....	7748	12	36.00	Free.
Do.....	do.....	7749	10	44.00	Free.
Do.....	do.....	7790	10	20.00	Free.
Do.....	do.....	7808	11	33.00	Free.
Do.....	Jan. 23, 1907	7846	11	33.00	Free.
Do.....	do.....	7847	11	33.00	Free.
Do.....	do.....	7848	11	33.00	Free.
Do.....	do.....	7860	11	38.00	Free.
Do.....	Jan. 24, 1907	7970	10	30.00	Free.
Do.....	do.....	7971	10	30.00	Free.
Do.....	do.....	7972	12	36.00	Free.
Do.....	Jan. 26, 1907	8145	12	36.00	Free.
Do.....	do.....	8146	12	30.00	Free.
Do.....	Jan. 28, 1907	8180	12	36.00	Free.
Do.....	do.....	8181	12	36.00	Free.
Do.....	do.....	8246	12	36.00	Free.
Do.....	do.....	8247	12	36.00	Free.
Do.....	do.....	8248	10 ¹ / ₂	33.00	Free.
Do.....	do.....	8249	10 ¹ / ₂	33.00	Free.
Do.....	do.....	8250	10	40.00	Free.
Do.....	Jan. 30, 1907	8349	12	36.00	Free.
Do.....	do.....	8350	12	36.00	Free.
Do.....	do.....	8351	12	36.00	Free.
Do.....	Jan. 31, 1907	8426	11	33.00	Free.
Do.....	do.....	8427	11	33.00	Free.
Do.....	Feb. 1, 1907	8495	10	45.00	Free.
Do.....	Feb. 2, 1907	8566	11	33.00	Free.
Do.....	do.....	8567	11	33.00	Free.
Do.....	do.....	8568	11	33.00	Free.
Do.....	do.....	8659	11	33.00	Free.
Do.....	Feb. 7, 1907	8752	11	33.00	Free.
Do.....	Feb. 9, 1907	8977	16	50.00	Free.
Do.....	do.....	8978	12	36.00	Free.
Do.....	do.....	8979	12	36.00	Free.
Do.....	do.....	8980	11	33.00	Free.
Do.....	Feb. 11, 1907	9065	10	50.00	Free.
Do.....	Feb. 12, 1907	9151	11	33.00	Free.
Do.....	do.....	9153	11	33.00	Free.
Do.....	Feb. 13, 1907	9180	12	36.00	Free.
Do.....	Feb. 14, 1907	9244	16	48.00	Free.
Do.....	do.....	9253	16	48.00	Free.
Do.....	Feb. 16, 1907	9423	12	42.00	Free.
Do.....	Feb. 18, 1907	9467	12	36.00	Free.
Do.....	do.....	9468	11	33.00	Free.
Do.....	Feb. 20, 1907	9642	11	33.00	Free.
Do.....	Feb. 21, 1907	9896	11	33.00	Free.
Do.....	Feb. 22, 1907	9735	11	33.00	Free.
Do.....	Feb. 23, 1907	9757	11	33.00	Free.
Quebec.....	do.....	9779	9	26.00	Free.
Do.....	do.....	9781	18	72.00	Free.
New Brunswick.....	Feb. 26, 1907	9855	11	33.00	Free.
Do.....	do.....	9866	13	40.00	Free.
Do.....	Feb. 27, 1907	9895	9	36.00	Free.
Do.....	Feb. 28, 1907	9902	11	45.00	Free.
Do.....	do.....	9903	11	33.00	Free.
Do.....	do.....	9904	13	39.00	Free.
Do.....	do.....	9905	15	45.00	Free.
Do.....	do.....	9906	11	33.00	Free.

Imports of pulp wood at Bangor, Me., from January 1, 1907, to June 1, 1908—
Continued.

From—	Date.	Entry No.	Quantity.	Value.	Duty.
			<i>Cords.</i>		
Quebec.	Feb. 28, 1907	9994	9	\$36.00	Free.
New Brunswick	Mar. 2, 1907	10019	10	40.00	Free.
Do.	Mar. 4, 1907	10046	15	45.00	Free.
Do.	do.	10047	12	36.00	Free.
Do.	do.	10048	12	36.00	Free.
Do.	do.	10049	12	36.00	Free.
Do.	do.	10085	10	40.00	Free.
Do.	Mar. 6, 1907	10100	12	36.00	Free.
Do.	do.	10101	14	42.00	Free.
Do.	do.	10133	13	39.00	Free.
Do.	do.	10134	12	40.00	Free.
Do.	Mar. 11, 1907	10244	11	33.00	Free.
Do.	do.	10245	10	40.00	Free.
Do.	do.	10246	164	50.00	Free.
Do.	Mar. 12, 1907	10263	11	33.00	Free.
Do.	Mar. 13, 1907	10280	12	36.00	Free.
Quebec.	do.	10292	10	40.00	Free.
New Brunswick	Mar. 14, 1907	10315	53	150.00	Free.
Quebec.	do.	10324	10	50.00	Free.
Do.	Mar. 15, 1907	10346	10	40.00	Free.
New Brunswick	Mar. 16, 1907	10379	12	36.00	Free.
Do.	Mar. 18, 1907	10396	12	48.00	Free.
Do.	Mar. 23, 1907	10511	144	46.00	Free.
Do.	do.	10612	14	45.00	Free.
Do.	Mar. 25, 1907	10689	12	35.00	Free.
Do.	Mar. 26, 1907	10611	12	36.00	Free.
Do.	do.	10612	12	36.00	Free.
Quebec.	Mar. 27, 1907	10669	9	45.00	Free.
New Brunswick	Mar. 28, 1907	10690	16	45.00	Free.
Do.	do.	10691	18	65.00	Free.
Do.	do.	10696	12	38.00	Free.
Do.	Mar. 29, 1907	10728	12	36.00	Free.
Do.	do.	10729	12	35.00	Free.
Do.	do.	10730	11	33.00	Free.
Quebec.	do.	10743	9	45.00	Free.
New Brunswick	do.	10766	45	225.00	Free.
Do.	do.	10766	18	90.00	Free.
Do.	do.	10767	9	45.00	Free.
Do.	Apr. 1, 1907	10788	10	33.00	Free.
Do.	do.	10790	12	35.00	Free.
Do.	Apr. 2, 1907	10828	11	33.00	Free.
Do.	do.	10829	12	36.00	Free.
Do.	do.	10830	14	42.00	Free.
Do.	do.	10831	15	45.00	Free.
Do.	do.	10832	14	42.00	Free.
Do.	do.	10833	10	40.00	Free.
Do.	Apr. 6, 1907	10944	12	36.00	Free.
Do.	do.	10945	15	45.00	Free.
Do.	do.	10946	11	33.00	Free.
Do.	do.	10947	15	45.00	Free.
Do.	Apr. 8, 1907	10970	13	39.00	Free.
Do.	do.	11012	12	36.00	Free.
Do.	Apr. 9, 1907	11037	12	36.00	Free.
Do.	do.	11040	11	33.00	Free.
Do.	do.	11041	11	33.00	Free.
Do.	Apr. 10, 1907	11081	12	38.00	Free.
Do.	Apr. 12, 1907	11144	13	39.00	Free.
Do.	do.	11145	16	48.00	Free.
Do.	do.	11146	11	33.00	Free.
Do.	do.	11147	11	33.00	Free.
Do.	do.	11148	12	36.00	Free.
Do.	do.	11149	12	36.00	Free.
Do.	Apr. 13, 1907	11179	12	36.00	Free.
Do.	do.	11180	15	45.00	Free.
Do.	do.	11181	12	36.00	Free.
Do.	do.	11182	13	39.00	Free.
Do.	do.	11183	15	45.00	Free.
Do.	do.	11184	13	39.00	Free.
Do.	do.	11213	18	90.00	Free.
Do.	do.	11214	18	90.00	Free.
Do.	do.	11215	45	225.00	Free.
Do.	do.	11216	18	90.00	Free.
Do.	do.	11217	9	45.00	Free.
Do.	do.	11218	9	45.00	Free.
Do.	Apr. 15, 1907	11230	10	30.00	Free.
Do.	do.	11231	11	33.00	Free.
Do.	do.	11232	12	36.00	Free.
Do.	Apr. 17, 1907	11334	11	33.00	Free.
Do.	do.	11335	11	33.00	Free.
Do.	do.	11336	14	42.00	Free.

Importations of pulp wood at Bangor, Me., from January 1, 1907, to June 1, 1908—
Continued.

From—	Date.	Entry No.	Quantity.	Value.	Duty.
			<i>Cords.</i>		
New Brunswick.....	Apr. 17, 1907	11337	14	\$42.00	Free.
Do.....	do.....	11338	14	42.00	Free.
Do.....	do.....	11339	39	117.00	Free.
Do.....	do.....	11341	14	42.00	Free.
Do.....	do.....	11342	10	30.00	Free.
Do.....	do.....	11343	10	30.00	Free.
Do.....	Apr. 18, 1907	11399	10	30.00	Free.
Do.....	Apr. 19, 1907	11435	15	45.00	Free.
Do.....	Apr. 20, 1907	11481	13	39.00	Free.
Do.....	do.....	11505	36	108.00	Free.
Do.....	do.....	11508	13	39.00	Free.
Do.....	do.....	11509	13	39.00	Free.
Do.....	Apr. 22, 1907	11571	13	39.00	Free.
Do.....	do.....	11572	13	39.00	Free.
Do.....	do.....	11573	10	33.00	Free.
Do.....	do.....	11576	20	65.00	Free.
Do.....	do.....	11577	30	120.00	Free.
Do.....	do.....	11578	10	30.00	Free.
Do.....	Apr. 23, 1907	11618	12	36.00	Free.
Do.....	do.....	11621	12	36.00	Free.
Do.....	do.....	11625	40	130.00	Free.
Do.....	do.....	11629	13	39.00	Free.
Do.....	do.....	11630	13	39.00	Free.
Do.....	do.....	11631	10	33.00	Free.
Do.....	do.....	11632	14	42.00	Free.
Do.....	do.....	11633	10	40.00	Free.
Do.....	do.....	11634	50	163.00	Free.
Do.....	do.....	11635	10	33.00	Free.
Do.....	Apr. 24, 1907	11658	12½	45.00	Free.
Do.....	do.....	11659	14½	50.00	Free.
Do.....	do.....	11660	12	36.00	Free.
Do.....	do.....	11661	12	36.00	Free.
Do.....	do.....	11662	10	33.00	Free.
Do.....	do.....	11663	10	33.00	Free.
Do.....	do.....	11664	15	45.00	Free.
Do.....	do.....	11665	12	38.00	Free.
Quebec.....	do.....	11679	72	360.00	Free.
Do.....	do.....	11680	63	315.00	Free.
Do.....	do.....	11681	63	315.00	Free.
Do.....	do.....	11682	45	225.00	Free.
Do.....	do.....	11683	27	135.00	Free.
New Brunswick.....	Apr. 25, 1907	11709	10	40.00	Free.
Do.....	do.....	11710	10	40.00	Free.
Do.....	do.....	11711	13	39.00	Free.
Do.....	do.....	11712	10	40.00	Free.
Do.....	do.....	11713	10	40.00	Free.
Do.....	do.....	11714	11	33.00	Free.
Do.....	do.....	11715	13	39.00	Free.
Do.....	do.....	11716	13	39.00	Free.
Do.....	do.....	11717	11	33.00	Free.
Do.....	do.....	11718	11	33.00	Free.
Do.....	do.....	11719	11	33.00	Free.
Do.....	do.....	11720	10	40.00	Free.
Do.....	do.....	11721	10	40.00	Free.
Do.....	do.....	11722	11	33.00	Free.
Quebec.....	do.....	11745	9	45.00	Free.
New Brunswick.....	Apr. 27, 1907	11803	10	30.00	Free.
Do.....	do.....	11804	10	40.00	Free.
Do.....	do.....	11808	70	280.00	Free.
Do.....	do.....	11809	12	36.00	Free.
Do.....	do.....	11810	12	36.00	Free.
Do.....	do.....	11811	10	40.00	Free.
Do.....	Apr. 29, 1907	11844	11	33.00	Free.
Do.....	do.....	11849	40	160.00	Free.
Do.....	do.....	11850	19	40.00	Free.
Do.....	do.....	11861	11	33.00	Free.
Do.....	do.....	11862	10	40.00	Free.
Do.....	do.....	11885	11	33.00	Free.
Do.....	do.....	11887	11	33.00	Free.
Do.....	do.....	11888	11	33.00	Free.
Do.....	do.....	11889	11	33.00	Free.
Do.....	Apr. 30, 1907	11920	11	33.00	Free.
Do.....	May 1, 1907	11979	10	33.00	Free.
Do.....	do.....	11980	10	40.00	Free.
Do.....	do.....	11981	10	40.00	Free.
Do.....	do.....	11982	10	40.00	Free.
Do.....	do.....	11983	10	40.00	Free.
Do.....	do.....	11984	45	180.00	Free.
Do.....	do.....	11985	12	40.00	Free.
Do.....	do.....	11986	11	33.00	Free.

Importations of pulp wood at Bangor, Me., from January 1, 1907, to June 1, 1908—
Continued.

From—	Date.	Entry No.	Quantity.	Value.	Duty.
			<i>Cords.</i>		
New Brunswick.....	May 1, 1907	11987	10	\$40.00	Free.
Do.....	do.....	11988	10	40.00	Free.
Do.....	do.....	11989	11	33.00	Free.
Do.....	do.....	11990	10	40.00	Free.
Do.....	do.....	11991	10	40.00	Free.
Do.....	May 2, 1907	12019	10	40.00	Free.
Do.....	do.....	12020	11	33.00	Free.
Do.....	do.....	12021	12	36.00	Free.
Do.....	do.....	12022	13	39.00	Free.
Quebec.....	do.....	12048	36	180.00	Free.
Do.....	do.....	12049	27	135.00	Free.
Do.....	do.....	12050	63	315.00	Free.
Do.....	do.....	12051	54	270.00	Free.
Do.....	do.....	12052	45	225.00	Free.
Do.....	do.....	12053	36	180.00	Free.
New Brunswick.....	May 3, 1907	12040	10	40.00	Free.
Do.....	do.....	12041	13	39.00	Free.
Do.....	May 6, 1907	12161	10	40.00	Free.
Do.....	May 7, 1907	12194	10	40.00	Free.
Do.....	do.....	12195	10	33.00	Free.
Do.....	do.....	12198	10	40.00	Free.
Do.....	do.....	12199	10	40.00	Free.
Do.....	do.....	12200	10	40.00	Free.
Do.....	do.....	12201	10	40.00	Free.
Do.....	do.....	12202	12	36.00	Free.
Do.....	do.....	12203	13	39.00	Free.
Do.....	May 8, 1907	12276	18	90.00	Free.
Do.....	May 9, 1907	12277	10	40.00	Free.
Do.....	do.....	12278	10	49.00	Free.
Do.....	do.....	12279	20	100.00	Free.
Do.....	do.....	12280	20	80.00	Free.
Do.....	do.....	12281	18	90.00	Free.
Do.....	May 10, 1907	12315	13	39.00	Free.
Do.....	do.....	12316	13	39.00	Free.
Do.....	do.....	12317	10	33.00	Free.
Do.....	do.....	12318	14	56.00	Free.
Do.....	do.....	12320	10	40.00	Free.
Do.....	do.....	12321	13	39.00	Free.
Do.....	do.....	12322	12	36.00	Free.
Quebec.....	do.....	12332	10	50.00	Free.
Do.....	do.....	12333	18	90.00	Free.
New Brunswick.....	May 11, 1907	12340	12	36.00	Free.
Do.....	do.....	12363	63	315.00	Free.
Do.....	do.....	12364	54	270.00	Free.
Do.....	do.....	12365	9	45.00	Free.
Do.....	do.....	12366	9	45.00	Free.
Do.....	May 13, 1907	12392	13	39.00	Free.
Do.....	May 14, 1907	12437	10	33.00	Free.
Do.....	do.....	12438	10	33.00	Free.
Do.....	do.....	12439	12	36.00	Free.
Do.....	do.....	12441	24	72.00	Free.
Do.....	do.....	12451	10	49.00	Free.
Do.....	May 15, 1907	12460	12	36.00	Free.
Do.....	do.....	12461	12	36.00	Free.
Do.....	do.....	12462	10	33.00	Free.
Do.....	May 16, 1907	12493	10	33.00	Free.
Do.....	do.....	12494	10	33.00	Free.
Do.....	do.....	12511	10	33.00	Free.
Do.....	do.....	12522	10	33.00	Free.
Do.....	May 17, 1907	12544	10	40.00	Free.
Do.....	do.....	12545	10	40.00	Free.
Do.....	do.....	12556	36	180.00	Free.
Do.....	do.....	12557	27	135.00	Free.
Do.....	do.....	12558	27	135.00	Free.
Do.....	do.....	12559	10	49.00	Free.
Do.....	May 18, 1907	12571	10	33.00	Free.
Do.....	do.....	12573	11	33.00	Free.
Do.....	do.....	12574	11	33.00	Free.
Quebec.....	do.....	12673	27	135.00	Free.
New Brunswick.....	May 20, 1907	12587	11	35.00	Free.
Do.....	do.....	12637	10	40.00	Free.
Do.....	do.....	12638	10	33.00	Free.
Do.....	do.....	12639	10	33.00	Free.
Do.....	do.....	12640	10	33.00	Free.
Do.....	May 21, 1907	12659	15	45.00	Free.
Do.....	do.....	12662	12	33.00	Free.
Do.....	do.....	12663	12	39.00	Free.
Do.....	do.....	12708	18	90.00	Free.
Do.....	do.....	12709	10	49.00	Free.
Canada.....	May 22, 1907	12806	11	33.00	Free.

Importations of pulp wood at Bangor, Me., from January 1, 1907, to June 1, 1908—
Continued.

From—	Date.	Entry No.	Quantity.	Value.	Duty.
			<i>Cords.</i>		
New Brunswick.	May 22, 1907	12986	14	\$42.00	Free.
Do.	do.	12987	11	33.00	Free.
Do.	do.	12910	10	40.00	Free.
Do.	do.	12911	10	49.00	Free.
Do.	May 23, 1907	12734	10	39.00	Free.
Do.	do.	12790	63	315.00	Free.
Do.	do.	12791	27	135.00	Free.
Do.	May 24, 1907	12750	50	163.00	Free.
Do.	May 25, 1907	12811	11	33.00	Free.
Do.	do.	12812	11	33.00	Free.
Do.	do.	12813	12	36.00	Free.
Do.	May 27, 1907	12847	12	35.00	Free.
Do.	do.	12848	13	40.00	Free.
Quebec.	May 28, 1907	12838	45	225.00	Free.
Do.	do.	12939	9	45.00	Free.
Do.	May 28, 1907	12940	9	45.00	Free.
Do.	do.	12941	9	45.00	Free.
New Brunswick.	May 29, 1907	12932	12	36.00	Free.
Do.	May 30, 1907	12957	12	38.00	Free.
Do.	do.	12958	11	33.00	Free.
Do.	do.	12959	11	33.00	Free.
Do.	May 31, 1907	12989	15	45.00	Free.
Do.	June 3, 1907	13079	10	33.00	Free.
Do.	do.	13080	10	33.00	Free.
Do.	June 4, 1907	13113	11	33.00	Free.
Do.	do.	13114	11	33.00	Free.
Quebec.	do.	13115	12	43.00	Free.
Do.	June 5, 1907	13160	46	161.00	Free.
Do.	do.	13174	27	135.00	Free.
Do.	do.	13175	45	225.00	Free.
Do.	do.	13176	36	180.00	Free.
Do.	do.	13177	36	180.00	Free.
Do.	do.	13178	18	90.00	Free.
Do.	do.	13179	9	45.00	Free.
Do.	do.	13180	9	45.00	Free.
Canada.	June 6, 1907	13213	10	30.00	Free.
Quebec.	do.	13237	36	180.00	Free.
Do.	do.	13238	18	90.00	Free.
Do.	do.	13239	36	180.00	Free.
Do.	June 7, 1907	13240	36	180.00	Free.
Do.	do.	13283	14	49.00	Free.
Canada.	do.	13285	10	30.00	Free.
New Brunswick.	June 8, 1907	13329	13	39.00	Free.
Do.	do.	13330	13	39.00	Free.
Do.	do.	13331	10	33.00	Free.
Do.	do.	13399	45	225.00	Free.
Do.	do.	13400	36	180.00	Free.
Do.	do.	13401	18	90.00	Free.
Do.	do.	13402	9	45.00	Free.
Do.	do.	13403	9	45.00	Free.
Do.	June 10, 1907	13376	13	46.00	Free.
Do.	June 11, 1907	13427	11	33.00	Free.
Quebec.	do.	13435	9	45.00	Free.
Do.	do.	13436	9	45.00	Free.
Do.	do.	13437	18	90.00	Free.
Canada.	June 12, 1907	13464	12	36.00	Free.
New Brunswick.	June 13, 1907	13492	14	49.00	Free.
Do.	June 14, 1907	13539	15	45.00	Free.
Quebec.	do.	13540	30	105.00	Free.
Do.	June 15, 1907	13608	18	90.00	Free.
Do.	do.	13607	18	90.00	Free.
Do.	do.	13608	18	90.00	Free.
Do.	do.	13609	9	45.00	Free.
Do.	do.	13610	9	45.00	Free.
Do.	do.	13611	9	45.00	Free.
Do.	do.	13612	54	270.00	Free.
Do.	June 20, 1907	13748	12	42.00	Free.
Do.	June 22, 1907	13881	12	36.00	Free.
Do.	do.	13883	12	36.00	Free.
New Brunswick.	June 26, 1907	14040	11	33.00	Free.
Do.	June 28, 1907	14134	12	42.00	Free.
Do.	July 9, 1907	298	10	35.00	Free.
Quebec.	July 10, 1907	342	20	98.00	Free.
Do.	July 16, 1907	543	40	240.00	Free.
Do.	do.	544	30	180.00	Free.
New Brunswick.	July 18, 1907	575	14	42.00	Free.
Do.	July 20, 1907	644	12	35.00	Free.
Do.	do.	645	12	35.00	Free.
Do.	do.	646	14	42.00	Free.
Do.	July 21, 1907	714	30	180.00	Free.

Importations of pulp wood at Bangor, Me., from January 1, 1907, to June 1, 1908—
Continued.

From—	Date.	Entry No.	Quantity.	Value.	Duty.
			<i>Cords.</i>		
New Brunswick	July 23, 1907	736	12	\$36.00	Free.
Do.	July 24, 1907	765	12	36.00	Free.
Quebec	do.	780	30	180.00	Free.
New Brunswick	July 25, 1907	796	13	39.00	Free.
Do.	July 27, 1907	890	10	30.00	Free.
Do.	July 29, 1907	917	14	40.00	Free.
Do.	do.	918	13	39.00	Free.
Do.	do.	919	8	25.00	Free.
Do.	July 30, 1907	959	15	30.00	Free.
Quebec	July 31, 1907	997	40	240.00	Free.
New Brunswick	do.	998	10	60.00	Free.
Do.	do.	999	10	60.00	Free.
Do.	Aug. 1, 1907	1015	15	45.00	Free.
Do.	Aug. 2, 1907	1042	15	45.00	Free.
Do.	do.	1051	10	40.00	Free.
Do.	do.	1052	10	40.00	Free.
Do.	Aug. 3, 1907	1084	10	40.00	Free.
Do.	do.	1103	30	180.00	Free.
Do.	do.	1104	10	60.00	Free.
Do.	do.	1105	10	60.00	Free.
Do.	do.	1106	10	60.00	Free.
Do.	do.	1107	10	60.00	Free.
Do.	do.	1108	20	120.00	Free.
Do.	Aug. 5, 1907	1139	48	144.00	Free.
Do.	do.	1140	12	36.00	Free.
Do.	do.	1141	12	36.00	Free.
Do.	do.	1157	15	45.00	Free.
Do.	Aug. 7, 1907	1224	16	48.00	Free.
Do.	Aug. 8, 1907	1245	36	144.00	Free.
Do.	do.	1247	13	39.00	Free.
Do.	Aug. 9, 1907	1310	60	288.00	Free.
Do.	do.	1311	36	144.00	Free.
Do.	do.	1313	36	144.00	Free.
Do.	do.	1314	12	39.00	Free.
Do.	Aug. 10, 1907	1341	48	192.00	Free.
Do.	Aug. 12, 1907	1369	48	192.00	Free.
Do.	Aug. 13, 1907	1419	12	48.00	Free.
Do.	do.	1420	12	48.00	Free.
Do.	Aug. 14, 1907	1450	48	192.00	Free.
Do.	Aug. 15, 1907	1481	48	192.00	Free.
Do.	do.	1483	11	33.00	Free.
Do.	Aug. 16, 1907	1510	12	48.00	Free.
Do.	do.	1511	12	48.00	Free.
Do.	Aug. 17, 1907	1533	12	48.00	Free.
Do.	do.	1542	10	60.00	Free.
Do.	do.	1543	10	60.00	Free.
Do.	do.	1544	10	60.00	Free.
Do.	Aug. 22, 1907	1677	12	36.00	Free.
Do.	Aug. 23, 1907	1707	96	384.00	Free.
Do.	Aug. 24, 1907	1743	48	192.00	Free.
Do.	Aug. 26, 1907	1789	11	33.00	Free.
Do.	do.	1790	36	144.00	Free.
Do.	do.	1791	36	144.00	Free.
Do.	Aug. 27, 1907	1814	72	288.00	Free.
Do.	Aug. 29, 1907	1873	60	240.00	Free.
Do.	Aug. 30, 1907	1901	36	144.00	Free.
Do.	do.	1902	48	192.00	Free.
Do.	Aug. 31, 1907	1927	12	48.00	Free.
Do.	Sept. 2, 1907	1961	12	48.00	Free.
Do.	do.	1962	12	48.00	Free.
Do.	Sept. 3, 1907	2006	12	48.00	Free.
Do.	do.	2007	12	48.00	Free.
Do.	Sept. 4, 1907	2025	12	48.00	Free.
Do.	do.	2026	12	48.00	Free.
Do.	Sept. 5, 1907	2049	48	192.00	Free.
Do.	Sept. 7, 1907	2118	60	240.00	Free.
Do.	Sept. 9, 1907	2157	12	48.00	Free.
Do.	do.	2158	12	48.00	Free.
Do.	do.	2166	60	240.00	Free.
Do.	Sept. 11, 1907	2226	13	39.00	Free.
Do.	do.	2227	13	39.00	Free.
Do.	do.	2229	36	144.00	Free.
Do.	Sept. 13, 1907	2264	12	48.00	Free.
Do.	Sept. 14, 1907	2288	12	39.00	Free.
Do.	do.	2289	13	39.00	Free.
Do.	do.	2290	12	48.00	Free.
Do.	Sept. 16, 1907	2325	10	39.00	Free.
Quebec	do.	2326	10	40.00	Free.

Importations of pulp wood at Bangor, Me., from January 1, 1907, to June 1, 1908—
Continued.

From—	Date.	Entry No.	Quantity.	Value.	Duty.
			<i>Cords.</i>		
New Brunswick.....	Sept. 16, 1907	2327	48	\$192.00	Free.
Do.....	Sept. 17, 1907	2378	20	80.00	Free.
Do.....	.....do.....	2381	12	48.00	Free.
Do.....	.....do.....	2382	12	48.00	Free.
Do.....	Sept. 18, 1907	2410	10	30.00	Free.
Do.....	Sept. 21, 1907	2501	10	40.00	Free.
Do.....	Sept. 23, 1907	2543	12	40.00	Free.
Do.....	Sept. 25, 1907	2615	12	40.00	Free.
Do.....	Sept. 27, 1907	2690	12	40.00	Free.
Do.....	.....do.....	2681	12	40.00	Free.
Do.....	Sept. 28, 1907	2707	12	38.00	Free.
Do.....	.....do.....	2709	12	40.00	Free.
Do.....	Sept. 30, 1907	2761	12	40.00	Free.
Do.....	.....do.....	2762	12	40.00	Free.
Do.....	Oct. 1, 1907	2793	12	40.00	Free.
Do.....	Oct. 2, 1907	2842	12	40.00	Free.
Do.....	.....do.....	2843	12	36.00	Free.
Do.....	Oct. 4, 1907	2907	12	40.00	Free.
Do.....	Oct. 5, 1907	2938	40	160.00	Free.
Do.....	Oct. 7, 1907	2978	12	40.00	Free.
Do.....	Oct. 8, 1907	3022	12	40.00	Free.
Do.....	.....do.....	3023	12	40.00	Free.
Do.....	Oct. 9, 1907	3055	12	40.00	Free.
Do.....	Oct. 18, 1907	3368	12	48.00	Free.
Do.....	.....do.....	3370	12	48.00	Free.
Do.....	.....do.....	3397	12	36.00	Free.
Do.....	Oct. 24, 1907	3630	12	36.00	Free.
Quebec.....	.....do.....	3631	12	40.00	Free.
New Brunswick.....	Oct. 25, 1907	3675	12	60.00	Free.
Do.....	Oct. 26, 1907	3725	10	40.00	Free.
Quebec.....	Oct. 30, 1907	3911	10	40.00	Free.
Do.....	.....do.....	3912	10	40.00	Free.
New Brunswick.....	Nov. 4, 1907	4115	10	40.00	Free.
Do.....	Nov. 8, 1907	4328	12	48.00	Free.
Do.....	.....do.....	4329	12	48.00	Free.
Do.....	Nov. 11, 1907	4442	11	48.00	Free.
Quebec.....	Nov. 12, 1907	4513	12	38.00	Free.
New Brunswick.....	Nov. 13, 1907	4582	10	28.00	Free.
Do.....	.....do.....	4583	10	40.00	Free.
Do.....	.....do.....	4607	10	30.00	Free.
Do.....	Nov. 16, 1907	4774	10	30.00	Free.
Do.....	.....do.....	4775	12	36.00	Free.
Do.....	Nov. 23, 1907	5142	12	48.00	Free.
Do.....	Nov. 26, 1907	5284	12	36.00	Free.
Do.....	Nov. 28, 1907	5408	10	30.00	Free.
Do.....	Nov. 30, 1907	5495	10	30.00	Free.
Do.....	Dec. 4, 1907	5644	12	48.00	Free.
Do.....	Dec. 5, 1907	5704	11	44.00	Free.
Do.....	Dec. 6, 1907	5744	12	48.00	Free.
Do.....	Dec. 9, 1907	5886	20	60.00	Free.
Do.....	.....do.....	5887	20	60.00	Free.
Do.....	Dec. 11, 1907	6048	12	48.00	Free.
Do.....	Dec. 14, 1907	6170	11	44.00	Free.
Do.....	Dec. 16, 1907	6270	12	48.00	Free.
Do.....	.....do.....	6271	12	48.00	Free.
Do.....	.....do.....	6293	10	30.00	Free.
Do.....	Dec. 21, 1907	6648	10	30.00	Free.
Do.....	Dec. 23, 1907	6822	10	40.00	Free.
Do.....	Dec. 24, 1907	6843	12	48.00	Free.
Do.....	Dec. 25, 1907	6881	13	39.00	Free.
Do.....	.....do.....	6882	12	36.00	Free.
Do.....	.....do.....	6883	13	39.00	Free.
Do.....	Dec. 27, 1907	7056	12	48.00	Free.
Do.....	.....do.....	7070	18	90.00	Free.
Do.....	Dec. 30, 1907	7180	12	36.00	Free.
Do.....	.....do.....	7181	12	48.00	Free.
Do.....	Dec. 31, 1907	7209	12	48.00	Free.
Do.....	.....do.....	7210	12	35.00	Free.
Do.....	Jan. 1, 1908	7248	11	33.00	Free.
Do.....	.....do.....	7258	20	120.00	Free.
Quebec.....	Jan. 2, 1908	7322	11	38.00	Free.
New Brunswick.....	Jan. 3, 1908	7355	10	40.00	Free.
Do.....	.....do.....	7356	11	35.00	Free.
Quebec.....	Jan. 6, 1908	7432	10	30.00	Free.
Do.....	.....do.....	7433	10	40.00	Free.
Do.....	.....do.....	7435	10	40.00	Free.
New Brunswick.....	.....do.....	7443	10	35.00	Free.
Quebec.....	Jan. 8, 1908	7608	10	40.00	Free.

Importations of pulp wood at Bangor, Me., from January 1, 1907, to June 1, 1908—
Continued.

From—	Date.	Entry No.	Quantity.	Value.	Duty.
			<i>Cords.</i>		
New Brunswick.....	Jan. 8, 1908	7809	13	\$39.00	Free.
Do.....	Jan. 9, 1908	7869	15	60.00	Free.
Quebec.....	do.....	7714	20	100.00	Free.
New Brunswick.....	Jan. 10, 1908	7775	11	44.00	Free.
Do.....	Jan. 11, 1908	7825	12	48.00	Free.
Do.....	Jan. 13, 1908	7930	11	44.00	Free.
Do.....	do.....	7952	11	44.00	Free.
Do.....	Jan. 15, 1908	8101	11	44.00	Free.
Do.....	do.....	8102	10	35.00	Free.
Quebec.....	Jan. 16, 1908	8167	10	40.00	Free.
New Brunswick.....	do.....	8173	11	44.00	Free.
Do.....	do.....	8174	15	60.00	Free.
Do.....	do.....	8251	30	180.00	Free.
Quebec.....	Jan. 17, 1908	8239	10	40.00	Free.
New Brunswick.....	Jan. 18, 1908	8309	11	44.00	Free.
Do.....	do.....	8310	11	44.00	Free.
Do.....	Jan. 20, 1908	8387	12	48.00	Free.
Quebec.....	do.....	8388	10	40.00	Free.
New Brunswick.....	do.....	8390	10	40.00	Free.
Do.....	Jan. 21, 1908	8483	10	40.00	Free.
Do.....	do.....	8484	11	33.00	Free.
Do.....	Jan. 22, 1908	8603	10	30.00	Free.
Quebec.....	do.....	8604	10	40.00	Free.
Do.....	do.....	8618	30	180.00	Free.
Do.....	do.....	8619	50	300.00	Free.
Do.....	do.....	8620	40	240.00	Free.
Do.....	do.....	8621	30	180.00	Free.
Do.....	do.....	8622	20	120.00	Free.
New Brunswick.....	Jan. 23, 1908	8636	39	156.00	Free.
Do.....	Jan. 24, 1908	8712	13	52.00	Free.
Do.....	Jan. 25, 1908	8807	11	44.00	Free.
Do.....	do.....	8808	13	52.00	Free.
Do.....	Jan. 27, 1908	8870	12	36.00	Free.
Do.....	do.....	8871	12	35.00	Free.
Do.....	do.....	8872	11	33.00	Free.
Quebec.....	do.....	8873	10	40.00	Free.
New Brunswick.....	Jan. 28, 1908	8990	12	48.00	Free.
Do.....	do.....	8991	12	48.00	Free.
Do.....	do.....	8992	12	48.00	Free.
Quebec.....	do.....	8993	10	40.00	Free.
New Brunswick.....	Jan. 30, 1908	9082	10	30.00	Free.
Do.....	do.....	9083	13	52.00	Free.
Do.....	do.....	9084	13	52.00	Free.
Do.....	do.....	9085	10	30.00	Free.
Do.....	do.....	9082	10	30.00	Free.
Do.....	do.....	9083	11	33.00	Free.
Do.....	do.....	9084	16	48.00	Free.
Do.....	do.....	9085	13	52.00	Free.
Do.....	do.....	9086	13	52.00	Free.
Quebec.....	do.....	9087	10	40.00	Free.
Do.....	do.....	9088	11	44.00	Free.
New Brunswick.....	Feb. 3, 1908	9234	12	48.00	Free.
Do.....	Feb. 4, 1908	9329	15	60.00	Free.
Do.....	do.....	9330	11	44.00	Free.
Do.....	do.....	9331	11	44.00	Free.
Do.....	Feb. 5, 1908	9392	33	132.00	Free.
Quebec.....	do.....	9394	10	40.00	Free.
Do.....	do.....	9395	10	40.00	Free.
New Brunswick.....	Feb. 6, 1908	9425	10	30.00	Free.
Do.....	do.....	9426	13	52.00	Free.
Do.....	do.....	9433	15	45.00	Free.
Do.....	do.....	9434	12	36.00	Free.
Do.....	Feb. 8, 1908	9550	39	156.00	Free.
Quebec.....	do.....	9553	10	40.00	Free.
New Brunswick.....	do.....	9554	11	44.00	Free.
Do.....	do.....	9555	11	44.00	Free.
Do.....	Feb. 10, 1908	9618	11	44.00	Free.
Quebec.....	do.....	9674	10	33.00	Free.
New Brunswick.....	do.....	9675	15	45.00	Free.
Do.....	do.....	9676	12	48.00	Free.
Do.....	do.....	9677	12	48.00	Free.
Do.....	do.....	9678	36	144.00	Free.
Quebec.....	Feb. 12, 1908	9811	10	40.00	Free.
New Brunswick.....	do.....	9812	10	40.00	Free.
Do.....	do.....	9813	12	36.00	Free.
Do.....	do.....	9814	10	30.00	Free.
Do.....	do.....	9815	12	48.00	Free.
Do.....	do.....	9816	10	20.00	Free.
Do.....	do.....	9817	10	30.00	Free.
Do.....	do.....	9818	12	48.00	Free.

Importations of pulp wood at Bangor, Me., from January 1, 1907, to June 1, 1908—
Continued.

From—	Date.	Entry No.	Quantity.	Value.	Duty.
			<i>Cords.</i>		
New Brunswick	Feb. 12, 1908	9819	12	\$48.00	Free.
Do	do	9820	12	36.00	Free.
Do	Feb. 13, 1908	9837	36	144.00	Free.
Do	do	9839	10	20.00	Free.
Do	Feb. 14, 1908	9960	10	38.00	Free.
Do	do	9961	11	44.00	Free.
Do	do	9962	11	44.00	Free.
Quebec	do	9963	10	33.00	Free.
New Brunswick	do	9964	10	40.00	Free.
Do	do	9965	12	30.00	Free.
Do	do	9966	11	44.00	Free.
Do	do	9967	10	30.00	Free.
Do	do	9968	11	44.00	Free.
Do	do	9969	12	48.00	Free.
Do	do	9970	11	44.00	Free.
Do	Feb. 15, 1908	10017	10	30.00	Free.
Do	Feb. 17, 1908	10096	14	56.00	Free.
Do	do	10110	10	40.00	Free.
Do	do	10111	10	30.00	Free.
Do	do	10112	11	33.00	Free.
Do	do	10113	45	180.00	Free.
Do	do	10114	36	144.00	Free.
Do	Feb. 18, 1908	10177	12	36.00	Free.
Do	do	10178	12	36.00	Free.
Do	Feb. 19, 1908	10260	10	40.00	Free.
Do	Feb. 20, 1908	10285	12	36.00	Free.
Do	do	10286	12	36.00	Free.
Do	do	10287	55	220.00	Free.
Do	do	10288	12	36.00	Free.
Do	Feb. 21, 1908	10310	10	30.00	Free.
Do	do	10311	16	48.00	Free.
Do	Feb. 22, 1908	10324	13	39.00	Free.
Do	do	10325	12	36.00	Free.
Do	do	10326	11	33.00	Free.
Do	do	10327	13	52.00	Free.
Do	do	10328	11	44.00	Free.
Do	do	10329	11	44.00	Free.
Do	Feb. 24, 1908	10411	12	36.00	Free.
Do	do	10412	9	27.00	Free.
Do	do	10427	11	33.00	Free.
Do	do	10428	11	36.00	Free.
Do	do	10429	12	48.00	Free.
Do	do	10430	11	44.00	Free.
Do	do	10438	10	33.00	Free.
Do	Feb. 25, 1908	10446	48	144.00	Free.
Do	do	10447	12	36.00	Free.
Do	do	10448	15	45.00	Free.
Do	do	10449	12	36.00	Free.
Do	do	10450	10	40.00	Free.
Do	do	10451	16	48.00	Free.
Do	do	10452	12	36.00	Free.
Do	do	10453	12	48.00	Free.
Do	do	10454	13	39.00	Free.
Do	do	10455	11	44.00	Free.
Do	Feb. 26, 1908	10492	14	42.00	Free.
Do	do	10493	10	30.00	Free.
Do	do	10494	10	40.00	Free.
Do	do	10495	12	36.00	Free.
Do	do	10496	13	39.00	Free.
Do	do	10505	10	60.00	Free.
Do	do	10506	10	60.00	Free.
Do	Feb. 27, 1908	10564	11	44.00	Free.
Do	do	10565	16	48.00	Free.
Do	do	10566	12	36.00	Free.
Do	do	10567	12	38.00	Free.
Do	Feb. 28, 1908	10599	13	39.00	Free.
Do	do	10600	11	44.00	Free.
Quebec	do	10604	10	60.00	Free.
Do	do	10607	48	228.00	Free.
New Brunswick	Feb. 29, 1908	10641	18	54.00	Free.
Do	do	10642	15	45.00	Free.
Do	Mar. 2, 1908	10674	12	36.00	Free.
Do	do	10675	10	30.00	Free.
Do	do	10676	11	33.00	Free.
Do	do	10677	12	36.00	Free.
Do	do	10678	15	45.00	Free.
Do	do	10679	12	36.00	Free.
Do	do	10680	14	42.00	Free.
Do	do	10681	16	48.00	Free.
Do	do	10682	11	44.00	Free.

Importations of pulp wood at Bangor, Me., from January 1, 1907, to June 1, 1908—
Continued.

From—	Date.	Entry No.	Quantity.	Value.	Duty.
			<i>Cords.</i>	¢	
New Brunswick.....	Mar. 2, 1908	10683	11	\$44.00	Free.
Do.....	do.....	10691	12	36.00	Free.
Do.....	do.....	10692	12	36.00	Free.
Do.....	do.....	10693	12	36.00	Free.
Do.....	do.....	10694	12	36.00	Free.
Do.....	Mar. 3, 1908	10708	14	42.00	Free.
Do.....	do.....	10709	18	54.00	Free.
Do.....	Mar. 4, 1908	10727	10	30.00	Free.
Do.....	do.....	10728	12	36.00	Free.
Quebec.....	Mar. 3, 1908	10733	45	270.00	Free.
Do.....	do.....	10734	36	216.00	Free.
Do.....	do.....	10735	27	162.00	Free.
New Brunswick.....	Mar. 5, 1908	10757	12	36.00	Free.
Do.....	do.....	10758	10	30.00	Free.
Do.....	Mar. 6, 1908	10778	12	36.00	Free.
Do.....	do.....	10779	15	45.00	Free.
Quebec.....	Mar. 7, 1908	10799	11	44.00	Free.
New Brunswick.....	do.....	10801	11	44.00	Free.
Quebec.....	Mar. 9, 1908	10822	11	44.00	Free.
New Brunswick.....	do.....	10823	16	48.00	Free.
Do.....	do.....	10849	11	33.00	Free.
Do.....	do.....	10850	11	33.00	Free.
Do.....	do.....	10851	11	33.00	Free.
Do.....	do.....	10852	11	33.00	Free.
Quebec.....	Mar. 10, 1908	10876	20	120.00	Free.
New Brunswick.....	do.....	10877	20	120.00	Free.
Do.....	do.....	10878	30	180.00	Free.
Do.....	do.....	10879	50	300.00	Free.
Do.....	Mar. 11, 1908	10894	11	33.00	Free.
Do.....	do.....	10895	11	33.00	Free.
Do.....	do.....	10896	11	33.00	Free.
Do.....	Mar. 12, 1908	10912	11	33.00	Free.
Quebec.....	Mar. 13, 1908	10937	15	60.00	Free.
New Brunswick.....	do.....	10938	11	33.00	Free.
Do.....	Mar. 14, 1908	10957	11	33.00	Free.
Do.....	do.....	10958	11	33.00	Free.
Do.....	Mar. 16, 1908	10977	11	33.00	Free.
Do.....	do.....	10978	11	33.00	Free.
Do.....	do.....	10979	11	33.00	Free.
Do.....	do.....	10980	11	33.00	Free.
Quebec.....	Mar. 17, 1908	11006	11	44.00	Free.
New Brunswick.....	do.....	11007	11	33.00	Free.
Do.....	do.....	11008	14	62.00	Free.
Do.....	do.....	11009	11	33.00	Free.
Do.....	do.....	11016	11	33.00	Free.
Quebec.....	do.....	11024	30	180.00	Free.
Do.....	do.....	11025	20	120.00	Free.
Do.....	do.....	11026	20	120.00	Free.
Do.....	do.....	11027	20	120.00	Free.
Do.....	do.....	11028	20	120.00	Free.
New Brunswick.....	Mar. 18, 1908	11039	11	33.00	Free.
Do.....	do.....	11040	11	33.00	Free.
Do.....	do.....	11041	11	33.00	Free.
Do.....	do.....	11042	11	33.00	Free.
Do.....	do.....	11043	12	48.00	Free.
Do.....	do.....	11044	11	33.00	Free.
Do.....	do.....	11068	11	33.00	Free.
Do.....	do.....	11069	11	33.00	Free.
Do.....	Mar. 20, 1908	11081	11	33.00	Free.
Do.....	do.....	11082	11	33.00	Free.
Do.....	do.....	11083	12	36.00	Free.
Do.....	Mar. 21, 1908	11094	11	33.00	Free.
Do.....	do.....	11095	11	33.00	Free.
Do.....	do.....	11096	11	33.00	Free.
Do.....	do.....	11097	11	33.00	Free.
Do.....	do.....	11098	11	33.00	Free.
Do.....	do.....	11099	11	33.00	Free.
Do.....	do.....	11100	11	33.00	Free.
Do.....	Mar. 23, 1908	11120	11	33.00	Free.
Do.....	do.....	11121	11	33.00	Free.
Do.....	do.....	11122	11	33.00	Free.
Do.....	do.....	11123	11	33.00	Free.
Do.....	do.....	11124	11	33.00	Free.
Do.....	do.....	11134	11	33.00	Free.
Quebec.....	Mar. 24, 1908	11153	30	180.00	Free.
Do.....	do.....	11154	20	120.00	Free.
Do.....	do.....	11155	20	120.00	Free.
Do.....	do.....	11156	10	60.00	Free.
Do.....	Mar. 25, 1908	11167	40	240.00	Free.
Do.....	do.....	11168	60	360.00	Free.
Do.....	do.....	11169	11	44.00	Free.
Do.....	do.....	11169	11	44.00	Free.

Importations of pulp wood at Bangor, Me., from January 1, 1907, to June 1, 1908—
Continued.

From—	Date.	Entry No.	Quantity.	Value.	Duty.
			<i>Cords.</i>		
New Brunswick.....	Mar. 23, 1908	11170	11	\$33.00	Free.
Do.....	do.	11171	11	33.00	Free.
Do.....	do.	11172	11	33.00	Free.
Do.....	do.	11173	11	33.00	Free.
Do.....	Mar. 26, 1908	11189	11	33.00	Free.
Do.....	do.	11190	11	33.00	Free.
Do.....	do.	11191	11	33.00	Free.
Do.....	do.	11192	11	33.00	Free.
Do.....	do.	11193	11	33.00	Free.
Do.....	do.	11194	11	33.00	Free.
Quebec.....	Mar. 27, 1908	11203	11	44.00	Free.
New Brunswick.....	do.	11204	11	33.00	Free.
Do.....	do.	11213	11	33.00	Free.
Do.....	do.	11214	10	30.00	Free.
Do.....	do.	11215	11	33.00	Free.
Do.....	Mar. 28, 1908	11232	11	33.00	Free.
Quebec.....	do.	11245	11	44.00	Free.
New Brunswick.....	do.	11246	10	30.00	Free.
Do.....	do.	11247	11	33.00	Free.
Do.....	do.	11248	11	33.00	Free.
Do.....	do.	11249	11	33.00	Free.
Do.....	do.	11250	11	33.00	Free.
Do.....	Mar. 31, 1908	11277	11	33.00	Free.
Do.....	do.	11278	12	48.00	Free.
Do.....	do.	11279	11	33.00	Free.
Do.....	do.	11280	11	33.00	Free.
Quebec.....	do.	11298	20	120.00	Free.
Do.....	do.	11299	80	180.00	Free.
Do.....	do.	11300	20	120.00	Free.
Do.....	do.	11301	20	120.00	Free.
Do.....	do.	11302	30	180.00	Free.
Do.....	do.	11303	20	120.00	Free.
New Brunswick.....	Apr. 1, 1908	11311	11	33.00	Free.
Do.....	do.	11312	11	33.00	Free.
Do.....	do.	11313	11	33.00	Free.
Do.....	do.	11314	11	35.00	Free.
Do.....	Apr. 3, 1908	11348	11	33.00	Free.
Do.....	do.	11349	11	33.00	Free.
Do.....	do.	11350	11	33.00	Free.
Do.....	do.	11351	11	33.00	Free.
Do.....	do.	11352	11	33.00	Free.
Do.....	do.	11353	11	33.00	Free.
Do.....	do.	11354	11	44.00	Free.
Quebec.....	Apr. 4, 1908	11380	11	44.00	Free.
New Brunswick.....	do.	11381	11	33.00	Free.
Do.....	do.	11382	11	33.00	Free.
Do.....	do.	11383	11	33.00	Free.
Do.....	do.	11384	11	33.00	Free.
Do.....	Apr. 6, 1908	11400	11	33.00	Free.
Do.....	do.	11401	11	33.00	Free.
Do.....	do.	11402	11	35.00	Free.
Quebec.....	do.	11403	11	44.00	Free.
Do.....	do.	11404	11	44.00	Free.
New Brunswick.....	do.	11420	36	144.00	Free.
Do.....	do.	11421	11	45.00	Free.
Do.....	do.	11422	11	33.00	Free.
Do.....	do.	11423	11	33.00	Free.
Do.....	do.	11424	11	33.00	Free.
Do.....	do.	11425	11	33.00	Free.
Do.....	Apr. 7, 1908	11439	11	33.00	Free.
Do.....	do.	11440	11	33.00	Free.
Quebec.....	do.	11441	11	44.00	Free.
New Brunswick.....	do.	11442	11	33.00	Free.
Do.....	Apr. 8, 1908	11460	11	33.00	Free.
Do.....	do.	11461	11	33.00	Free.
Do.....	do.	11462	11	33.00	Free.
Do.....	do.	11463	11	38.00	Free.
Quebec.....	Apr. 9, 1908	11495	20	120.00	Free.
Do.....	do.	11496	40	240.00	Free.
Do.....	do.	11497	20	120.00	Free.
Do.....	do.	11498	30	180.00	Free.
New Brunswick.....	Apr. 10, 1908	11523	11	33.00	Free.
Do.....	do.	11524	11	33.00	Free.
Do.....	do.	11525	11	33.00	Free.
Do.....	do.	11526	11	33.00	Free.
Quebec.....	do.	11527	11	44.00	Free.
New Brunswick.....	do.	11531	11	30.00	Free.
Quebec.....	Apr. 11, 1908	11563	11	44.00	Free.
New Brunswick.....	do.	11564	11	33.00	Free.
Do.....	do.	11565	11	33.00	Free.
Do.....	do.	11566	11	33.00	Free.
Do.....	do.	11567	11	33.00	Free.

Importations of pulp wood at Bangor, Me., from January 1, 1907, to June 1, 1908—
Continued.

From—	Date.	Entry No.	Quantity.	Value.	Duty.
			<i>Cords.</i>		
New Brunswick	Apr. 11, 1908	11588	12	\$48.00	Free.
Do.	do	11589	12	48.00	Free.
Do.	Apr. 13, 1908	11601	11	33.00	Free.
Do.	do	11602	11	33.00	Free.
Do.	do	11603	11	33.00	Free.
Do.	do	11604	11	38.00	Free.
Quebec	do	11615	11	44.00	Free.
New Brunswick	do	11627	11	33.00	Free.
Do.	Apr. 14, 1908	11646	11	33.00	Free.
Do.	do	11647	12	36.00	Free.
Do.	Apr. 16, 1908	11705	11	33.00	Free.
Do.	do	11706	11	33.00	Free.
Do.	do	11707	12	48.00	Free.
Do.	do	11708	11	33.00	Free.
Do.	do	11709	11	33.00	Free.
Do.	do	11714	12	36.00	Free.
Do.	Apr. 17, 1908	11753	11	33.00	Free.
Quebec	do	11759	11	40.00	Free.
Do.	do	11761	11	35.00	Free.
Do.	do	11762	11	40.00	Free.
New Brunswick	Apr. 20, 1908	11810	11	33.00	Free.
Do.	do	11811	11	33.00	Free.
Do.	do	11812	11	33.00	Free.
Do.	do	11813	11	33.00	Free.
Do.	do	11814	11	33.00	Free.
Do.	Apr. 21, 1908	11865	12	48.00	Free.
Do.	do	11866	11	33.00	Free.
Do.	do	11867	12	48.00	Free.
Do.	Apr. 23, 1908	11937	11	33.00	Free.
Do.	do	11938	11	33.00	Free.
Do.	Apr. 24, 1908	11979	12	48.00	Free.
Do.	Apr. 27, 1908	12051	44	132.00	Free.
Do.	do	12072	11	33.00	Free.
Do.	do	12084	11	33.00	Free.
Do.	do	12085	11	33.00	Free.
Do.	Apr. 29, 1908	12149	11	33.00	Free.
Do.	do	12150	11	33.00	Free.
Do.	Apr. 30, 1908	12192	11	33.00	Free.
Quebec	May 1, 1908	12228	11	44.00	Free.
New Brunswick	May 2, 1908	12243	11	33.00	Free.
Do.	do	12262	11	33.00	Free.
Do.	do	12263	11	33.00	Free.
Do.	May 4, 1908	12273	11	44.00	Free.
Do.	May 6, 1908	12354	11	33.00	Free.
Do.	May 7, 1908	12379	11	33.00	Free.
Do.	do	12380	11	33.00	Free.
Do.	May 12, 1908	12495	11	33.00	Free.
Do.	May 14, 1908	12557	11	33.00	Free.
Do.	May 15, 1908	12596	11	33.00	Free.
Do.	do	12599	12	36.00	Free.
Do.	do	12600	11	33.00	Free.
Do.	May 18, 1908	12650	11	33.00	Free.
Quebec	May 19, 1908	12699	11	40.00	Free.
Do.	May 20, 1908	12711	11	40.00	Free.
Do.	do	12712	10	40.00	Free.
New Brunswick	do	12713	12	36.00	Free.
Quebec	May 21, 1908	12769	10	40.00	Free.
Do.	May 22, 1908	12801	11	40.00	Free.
Do.	do	12802	11	40.00	Free.
New Brunswick	do	12803	11	33.00	Free.
Do.	May 27, 1908	12912	11	33.00	Free.
Do.	May 28, 1908	12944	11	33.00	Free.
Do.	do	12945	11	33.00	Free.
Quebec	do	12946	11	40.00	Free.
Do.	do	12947	12	72.00	Free.
Do.	do	12948	12	72.00	Free.
Do.	May 29, 1908	12977	12	72.00	Free.
Do.	do	12981	12	72.00	Free.
Do.	do	12982	12	72.00	Free.
Total			14,562	\$6,232.00	

The following tables were compiled by the committee from the foregoing statistics of the Treasury Department, which were taken from the books of the collectors of customs at the various ports. In reducing pounds to tons, 1,000 pounds or more were considered as 1

ton (2,000 pounds) and quantities under 1,000 pounds were disregarded. The results, therefore, are only approximately accurate, but they present a fair résumé of a mass of figures concerning the importation of wood pulps and printing papers into the United States from January 1, 1907, to June 1, 1908.

Importations from Canada into the United States from January 1, 1907, to January 1, 1908.

	Quantity.	Value.
	<i>Tons.</i>	
Ground wood pulp.....	128,660	\$1,919,624.69
Chemical pulp, unbleached.....	50,859	1,836,809.02
Printing paper.....	13,362	473,044.81

PRINTING PAPER.

[According to value per pound.]

	Quantity.	Value.
	<i>Tons.</i>	
2 cents and under.....	13,248	\$467,948.81
2 cents to 2½ cents.....	82	3,524.00
2½ cents to 3 cents.....	32	1,653.00
4 cents to 5 cents.....	2	19.00
Total.....	13,362	473,044.81

No bleached chemical wood pulp was imported.

Importations from Canada to the United States for five months, January 1, 1908, to June 1, 1908.

	Quantity.	Value.
	<i>Tons.</i>	
Ground wood pulp.....	44,179	\$512,832.88
Chemical pulp, unbleached.....	11,981	414,258.28
Printing paper.....	5,677	237,015.00

* All printing paper imported valued at 2 cents per pound or less, except 17 tons valued at above 2 cents and less than 2½ cents, amounting to \$846.

No bleached chemical wood pulp was imported.

European importations to the United States from January 1, 1907, to January 1, 1908.

	Quantity.	Value.
	<i>Tons.</i>	
Ground wood pulp.....	12,202	\$430,900
Chemical pulp, unbleached.....	49,037	1,759,415
Chemical pulp, bleached.....	37,389	1,876,911
Filter masse.....	134	24,400
Printing paper.....	1,515	240,665

* 13 tons from Japan valued at \$4,392.

European importations to the United States from January 1, 1907, to January 1, 1908—
Continued.

PRINTING PAPER.

[According to value per pound.]

	Quantity.	Value.
	<i>Tons.</i>	
2½ cents to 3 cents.....	52	\$2,670
3 cents to 4 cents.....	79	6,752
4 cents to 5 cents.....	54	4,778
5 cents and over.....	1,330	226,465
Total.....	1,515	240,665

European importations to the United States from January 1, 1907, to January 1, 1908,
by countries of origin.

[Tons of 2,000 pounds.]

Countries.	Ground wood pulp.	Chemical pulp, unbleached.	Chemical pulp, bleached.	Filter masse.	Printing paper.
Austria-Hungary.....	.....	1,308	5,252	.....	327
Germany.....	5,603	21,251	8,472	107	554
Norway.....	1,225	6,294	17,618	.....	.....
Sweden.....	5,500	16,861	1,926	.....	.....
Russia.....	.....	2,022	4,022	.....	.....

European importations to the United States for five months, January 1, 1908, to June 1, 1908.

	Quantity.	Value.
	<i>Tons.</i>	
Ground wood pulp.....	3,507	\$131,124
Chemical pulp, unbleached.....	15,745	546,267
Chemical pulp, bleached.....	12,738	661,008
Filter masse.....	42	1,405
Printing paper.....	433	66,218

PRINTING PAPER.

[According to value per pound.]

	Quantity.	Value.
	<i>Tons.</i>	
2 cents to 2½ cents.....	14	\$634
3 cents to 4 cents.....	33	4,393
4 cents to 5 cents.....	9	887
5 cents and over.....	377	60,304
Total.....	433	66,218

European importations to the United States for five months, January 1, 1908, to June 1, 1908, by countries of origin.

Countries.	Ground wood pulp.	Chemical pulp, unbleached.	Chemical pulp, bleached.	Filter masse.	Printing paper.
	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>
Austria-Hungary.....	521	114	851	.....	112
Germany.....	999	6,853	4,110	39	145
Norway.....	809	4,694	3,092	.....	.....
Sweden.....	1,178	3,240	3,545	.....	.....
Russia.....	.....	749	904	.....	.....

Other countries that imported various kinds of pulp and printing paper are: England, Scotland, France, Belgium, Netherlands, and Italy. The amount of printing paper imported from these countries combined, during the seventeen months, was 810 tons.

PULP AND PAPER INVESTIGATION HEARINGS

HD 9821
A-
1908a

OCTOBER 14, 15, 18, 20, 21, 23, AND 26, 1908

SELECT COMMITTEE OF HOUSE OF REPRESENTATIVES

JAMES R. MANN, Illinois, *Chairman*

JAMES M. MILLER, Kansas

HENRY T. BANNON, Ohio

WILLIAM H. STAFFORD, Wisconsin

THELUS W. SIMS, Tennessee

WILLIAM H. RYAN, New York

NO. 32

WASHINGTON
GOVERNMENT PRINTING OFFICE
1908

WOOD PULP, PRINT PAPER, ETC.

WEST HOTEL,
Minneapolis, Minn., October 14, 1908—10 a. m.

STATEMENT OF F. J. KLINE, OF MINNEAPOLIS.

(Sworn and examined by the chairman.)

The CHAIRMAN. Give us your name.

Mr. KLINE. F. J. Kline.

The CHAIRMAN. Your business?

Mr. KLINE. Logger and lumberman. Superintendent of logging.

The CHAIRMAN. Connected with whom?

Mr. KLINE. T. B. Walker.

The CHAIRMAN. Can you tell us in your own way something in regard to the forestry conditions and the quantity of forests of Minnesota, especially as to the spruce forests?

Mr. KLINE. I have been traveling through that country for the last thirty-five years. You mean in reference to the growth of spruce?

The CHAIRMAN. Have you any idea as to the quantity of spruce forests?

Mr. KLINE. It would be pretty hard for me to say anything in regard to the exact quantity of spruce, or an estimate of it, because I have never paid so much attention to that. But I have been over the country and observed and noticed spruce all through the land.

The CHAIRMAN. How does the spruce usually grow here, by itself or intermingled with other trees?

Mr. KLINE. It is intermingled with other trees. I don't know as I have ever seen any large spruce swamps in Minnesota. I do not believe I have ever been on much land but what there was some spruce on it, unless it is around close to the lake shores or bodies of water. You don't see much spruce there. When you get back where there is a thick growth of timber you find scattered through that more or less spruce.

The CHAIRMAN. What grows in the swamps up here, tamarack?

Mr. KLINE. Yes; the swamps are tamarack and cedar, but in that there is always scattered spruce, whether it is a cedar swamp or a tamarack swamp, and take it in these open bogs you find islands where there is considerable spruce.

The CHAIRMAN. As far as your knowledge goes, there are no very extensive tracts of almost pure spruce?

Mr. KLINE. No, sir.

The CHAIRMAN. In an ordinary Minnesota forest, what proportion of the trees would be spruce? Have you any idea?

Mr. KLINE. That would be pretty hard for me to answer at once. I would have to think that over a little. You go up almost any

stream, whenever there is any thick growth of any small timber you will find spruce in there, running from 4 inches to 7 inches in diameter. The spruce that I have seen in Minnesota is all small. We do not have any logging spruce unless it is some of the butts. The balance is generally too small for logs. I have not paid so much attention to that.

The CHAIRMAN. The spruce generally, then, is not of sufficient size for saw logs?

Mr. KLINE. No, sir. They get a good many spruce logs, too. As a rule, if you do get logs, they are very small logs and better be cut into wood.

The CHAIRMAN. Do the other trees grow large?

Mr. KLINE. You can go up on ridges along where there are large tracts of scattered white pine and find birch in there, and you will find scattered spruce there, and that spruce is large; that is, it will be, say, from 8 to 12 and 14 inches in diameter at the butt. You may get a couple of logs out of that and the balance of it is too small for logs and it is a little rough, too. Then you get down on the lower swamps where the undergrowth is smaller, there you will find a good deal of scattered spruce, but it is small.

The CHAIRMAN. Have you any idea as to the age of small spruce?

Mr. KLINE. No, sir; I have not. It has been growing there ever since I have been in that country.

The CHAIRMAN. That would not be very long?

Mr. KLINE. No; thirty-five years is all. I have made a good many trips up into the Rum River country near Mille Lacs. There was considerable spruce in through there which has been cut. Then when we went up toward the line of the Northern Pacific running east and west the spruce was not quite as thick. Starting then from Brainerd and going north toward a line that would run south of Leech Lakes, there was considerable Norway and black pine, but still we got a good deal of spruce. I never considered that we got into the spruce country until we got up on a line running by Bemidji Lake. When you get north of Bemidji Lake and take a line east and west, there is where you commence to get into more spruce than you have south of there. That has been my observation.

The CHAIRMAN. You consider, then, that the spruce forests of Minnesota would be north of that east and west line?

Mr. KLINE. Yes, sir. The farther north you go until you get up toward Rainy Lake, the thicker the spruce is. Take it on the Big Fork and through that country, I have seen a good many forties that had a good deal of spruce on them, pretty well covered with spruce.

The CHAIRMAN. When you say a good deal of spruce, can you give us any idea of the quantity it would run by any form of measurement in your mind either as to the number of trees or the board measurement?

Mr. KLINE. We have estimated a good deal of land where it runs from 100 up to 400 cords to the 40 of spruce.

The CHAIRMAN. When you speak of cords, do you mean cords of pulp wood?

Mr. KLINE. Yes, sir. I mean cords of pulp wood. In estimating timber now days we estimate everything there is on the land—cedar poles, tamarack, and everything we have got. I should judge that

the spruce through the country would not run over a cord and a half or two and a half cords to the acre—about a cord and half to two cords.

The CHAIRMAN. Is most of the spruce pulp that is cut up there cut in connection with the cutting of telegraph poles and ties?

Mr. KLINE. Yes; most of it.

The CHAIRMAN. That is, they cut a piece clean, taking out the cedar for telegraph poles?

Mr. KLINE. That is getting to be the practice a good deal now. Some of these firms will buy a tract of land, and when they cut it they cut it for the market to get everything there is on it. They will have cedar poles and cedar posts and some scattering logs and pulp wood, and whatever there is on the land they cut, and cut it to sell. Years ago, when a man went in to cut cedar, he contracted first as to what he wanted. If he wanted a lot of cedar, he would go and cut it and leave the spruce and tamarack, but the firms are changing something in that respect; there are so many yards there.

The CHAIRMAN. What do they use the tamarack for?

Mr. KLINE. Principally for ties. And they cut logs. The saw-mills, where they can haul logs right to the mill, cut tamarack, and also cut tamarack along the streams and deliver it down in the booms here.

The CHAIRMAN. Does the tamarack grow large?

Mr. KLINE. No; it does not grow very large. Tamarack grows from 8 to 12 inches at the butt.

The CHAIRMAN. Why is it, in your opinion, that the spruce is not larger up there?

Mr. KLINE. It is not a spruce country like they have in Wisconsin.

The CHAIRMAN. I have been told that this was a spruce country.

Mr. KLINE. I mean for logging. It is just the same with the birch in this country. I do not know why we do not produce the same kind of birch in this country that they do in Wisconsin. The big yellow birch don't grow.

The CHAIRMAN. In your opinion Minnesota is not as good a soil and climate combined for the production of spruce forests as Wisconsin?

Mr. KLINE. No, sir; I don't think so. I don't know except what they tell me. I have never been in Wisconsin. They tell me that there has been lots of spruce and hemlock taken out of there. That is all I know.

The CHAIRMAN. I can tell you that they have mighty little spruce in Wisconsin.

Mr. KLINE. I only know what loggers and others have told about that. Take our tamarack in this country right up to Deer River there, where they have cut perhaps half a million tamarack ties. I think 10 or 15 per cent of those ties are so small that the railroad company won't take them. They can not get a 6-inch face on them. I have been there recently and bought a lot.

The CHAIRMAN. I noticed in Wisconsin, when the committee was there a few weeks ago, that they have at all of the mills a very large supply of spruce wood on hand, most of which has come from northern Minnesota and a large proportion of which was extremely small, and practically not any of it was of large size. They told us that

that was cut in the main where they were cutting cedar poles and tamarack ties.

Mr. KLINE. That is the way they are doing now.

The CHAIRMAN. Do you get out any pulp wood yourself, your people?

Mr. KLINE. No, sir.

The CHAIRMAN. Are your people engaged in the lumber business?

Mr. KLINE. Yes, sir.

The CHAIRMAN. What do you make?

Mr. KLINE. Cutting logs; manufacturing them into lumber.

The CHAIRMAN. Just making lumber?

Mr. KLINE. Yes, sir.

The CHAIRMAN. From what?

Mr. KLINE. Norway and white pine and tamarack.

The CHAIRMAN. Do they use spruce?

Mr. KLINE. Yes, sir; and birch.

The CHAIRMAN. How much spruce do you use? Do you cut much spruce?

Mr. KLINE. We are cutting east of Park Rapids and west of Leech Lake and extending over toward Lake Itasca. I never figured out the percentage, but there is spruce on about all of that land. It would be pretty hard for me to say how much there is.

The CHAIRMAN. What do you do with the small spruce?

Mr. KLINE. Cut it down to 5 inches and haul it to the mill.

The CHAIRMAN. Cut it into lumber?

Mr. KLINE. Yes, sir.

The CHAIRMAN. Do you cut any into pulp wood?

Mr. KLINE. No, sir.

The CHAIRMAN. You cut it clean, I suppose.

Mr. KLINE. We cut it clean.

The CHAIRMAN. Do you own the land?

Mr. KLINE. In some cases they own the land, and in some cases own the timber.

The CHAIRMAN. Do they make any distinction as to cutting it clean between the land that they own and the land that they buy the stump-age on?

Mr. KLINE. No, sir.

The CHAIRMAN. Do you know whether any one in Minnesota outside of the State adopts the practice of cutting only the mature timber?

Mr. KLINE. I do not know what the custom is outside of the people that I am working for. It depends on their contracts, I suppose, a good deal. Some of the old contracts that these lumbermen have with timber owners were for the pine timber standing on the land. They were made years ago. The contracts that are made now are for all the timber on the land, and they cut everything, as far as they can, into logs.

The CHAIRMAN. In the East in some places, now, where the land is owned by the paper mills or those interested in them, they do not cut young spruce wood under 12 and 14 inches. If they adopted that practice here, they would not cut much spruce wood, I take it from your statement.

Mr. KLINE. No; they would not cut much spruce.

The CHAIRMAN. Are these small spruce trees young trees?

Mr. KLINE. I would not judge them to be. I have never figured on the age. I suppose it averages up probably with other timber of about the same size. Just how old it is, I do not know.

The CHAIRMAN. Of course, we will endeavor to ascertain the age of those trees, but spruce timber of that size ought not to be so very old. Was it just as big thirty-five years ago as it is now? In other words, do these spruce trees under such conditions as you describe reach their maturity at the size of 7 or 8 inches in diameter?

Mr. KLINE. I do not think they do. I think they grow the same as any other trees.

The CHAIRMAN. Do you think all the small spruce trees would, or a fair proportion of them if permitted to remain there, would develop into saw logs eventually of good size?

Mr. KLINE. Well, I do not know. I do not say they would not. It is a matter I have not studied into. The spruce may have sprung up and started to grow later than the other class of timber. My idea is it started about the same time that the tamarack did. I do not think it grows quite as fast as tamarack.

The CHAIRMAN. Do you think the forests up there started to grow within the last fifty years?

Mr. KLINE. Oh, no.

The CHAIRMAN. I suppose there were forests there a good many years ago.

Mr. KLINE. I suppose there were. Long before fifty years. When we started to explore where the waters commence running north, we went up to the north end of the Bemidji Lake, and there are portages there over into the lakes where the waters run north. When we got into the Red Lake country or got into the country that is tributary to Rainy River, we considered we got into a good deal heavier spruce country than we had been in south of there. To estimate it up, I did not do it.

The CHAIRMAN. Are the spruce trees large up in the Rainy River country?

Mr. KLINE. No, sir; I never saw any very large trees there.

The CHAIRMAN. Do you have any hemlock in northern Minnesota?

Mr. KLINE. I do not remember of ever seeing any hemlock in Minnesota. I might have run onto some.

The CHAIRMAN. Do you have much balsam fir?

Mr. KLINE. Yes; we have some. I can not say that we have a large amount of it, but we have some balsam.

The CHAIRMAN. Just scattered through the forests?

Mr. KLINE. Yes; scattered through the woods. It grows just about in the same manner that spruce does.

The CHAIRMAN. Do you have much cottonwood?

Mr. KLINE. Yes; we have some cottonwood.

The CHAIRMAN. What do you use that for?

Mr. KLINE. Cut it into logs now. Do you mean basswood?

The CHAIRMAN. No; basswood is a linden. *Tilia americana*.

Mr. KLINE. I had in mind basswood. Cottonwood is that small, tall stuff with light bark.

The CHAIRMAN. That is aspen, this small stuff that they call poplar or popple.

Mr. KLINE. Does it grow on low land, this cottonwood?

The CHAIRMAN. It grows on any kind of land pretty nearly.

Mr. KLINE. I don't remember seeing much of that kind, if I understand you right.

The CHAIRMAN. Cottonwood is *Populus deltoides*.

Mr. KLINE. A number of years ago if you spoke Latin terms to me I would have known something about it. I have not seen a Latin book for forty years, so you will have to speak English.

The CHAIRMAN. I thought it might help you out if you did not identify it by the English names.

Mr. KLINE. No, sir. When I went to school I had to learn my prosody in Latin down at Notre Dame, but I got all I wanted there.

The CHAIRMAN. Have you any views as to the future supply of forest trees for lumber and pulp-wood purposes?

Mr. KLINE. No; I have been in this business since 1871, and in about 1879 or 1880 the people of this town thought that T. B. Walker, Frederick Weyerhaeuser, and the Pillsburys, and two or three other men controlled all the forests in Minnesota, and it was going to be cut off in about ten years. I have been waiting ever since for this timber to be cut off.

The CHAIRMAN. Hasn't it been largely cut off?

Mr. KLINE. It has been largely cut off, but I can take you where they have been cutting clean for the last ten years, and they get all the way from fifty to a hundred millions every year, so I have given it up.

The CHAIRMAN. Can you find any white-pine forests up here?

Mr. KLINE. They keep cutting it right along.

The CHAIRMAN. Where do they take it to?

Mr. KLINE. They are bringing it down into the booms and they are sawing it up at the mills.

The CHAIRMAN. We can not get it in Chicago.

Mr. KLINE. They get it here. They are sawing at Bemidji. There are two big mills there. They are sawing at International Falls and they are sawing at Duluth. I don't know where they are not sawing logs, hardly. They keep getting it.

The CHAIRMAN. What is it worth?

Mr. KLINE. It depends on whether you are hard up nowadays. I don't know. Logs are worth, I suppose, about \$18 or \$20. Some of them sell for a good deal less than that.

The CHAIRMAN. How high has white-pine lumber sold for in the last two or three years?

Mr. KLINE. I am not posted in the lumber business. I am logging. I don't remember what it has sold for.

The CHAIRMAN. Do you think there is much white pine left in Minnesota?

Mr. KLINE. Judging from the past, I should think that there was.

The CHAIRMAN. Where is that?

Mr. KLINE. There is timber all over northern Minnesota, I think.

The CHAIRMAN. I suppose the gentlemen are going to show us some of it.

Mr. KLINE. There is lots of timber on the Big Fork.

The CHAIRMAN. How about Norway pine; is there a good deal of that here?

Mr. KLINE. Yes. Take it west of Leech Lake and northwest, there is a very large amount of Norway there.

The CHAIRMAN. Is there any forest left up around Leech Lake except that which is on Indian reservations?

Mr. KLINE. Yes.

The CHAIRMAN. I was up there a few years ago and I couldn't see any then.

Mr. KLINE. Well, I will tell you. You go between Leech Lake and Little Boy and there is timber in there.

The CHAIRMAN. That is where it has not been accessible, I suppose.

Mr. KLINE. It is where it has not been cut. We talked of cutting some there this winter. I don't know as we will.

The CHAIRMAN. When you cut timber up here it is cut usually in the fall and winter, I suppose?

Mr. KLINE. Yes, sir.

The CHAIRMAN. How do you get it out?

Mr. KLINE. The logging nowadays is done principally on railroads. Some of it driven into the streams.

The CHAIRMAN. That depends upon where the railroad runs, then, as to whether it is profitable to get the logs out, I suppose?

Mr. KLINE. Yes.

The CHAIRMAN. How far from a railroad can they afford to bring logs to railroads without running a little spur in?

Mr. KLINE. It depends a good deal on the character of the country and the quantity of the timber. There are a good many things which enter into it.

The CHAIRMAN. I do not mean white-pine lumber, because that they haul for a long distance.

Mr. KLINE. Any kind of timber you have got to figure on a good many different things. As to whether you will haul on sleds or build a spur. They have got what they call steam log haulers. That is coming in. Whether you are going to haul them on that or haul them on a sled or a railroad. A man will figure for a week if he has got fifteen or twenty million feet of logs to haul whether he will build a railroad or haul them on sleds.

The CHAIRMAN. How far do they haul them on sleds?

Mr. KLINE. There is one firm up north that hauls on sleds about 10 miles.

The CHAIRMAN. That would be probably an extreme distance that it would pay.

Mr. KLINE. Yes, sir.

The CHAIRMAN. The cutting of logs in the country depends practically to-day upon getting a railroad within 10 miles?

Mr. KLINE. Yes; I will explain that to you. There was a level country, boggy and open, where it was easy to build a good winter logging road and difficult to build a railroad, and there was just a bunch of timber out there to cut.

The CHAIRMAN. Ordinarily, then, they would not haul to a railroad from a distance of 10 miles?

Mr. KLINE. No; we do not expect to haul over 3 miles.

The CHAIRMAN. Is there a good deal of forest up here in Minnesota where there are logs that are a good deal farther than that from any railroad communication? I should think there would be.

Mr. KLINE. There is east of the Minnesota and International road on the Big Fork River and all through there. There is lots of white pine in there and it is a good ways off—18 or 20 miles from a railroad—but they are surveying in that country and expect to get it out on railroads.

The CHAIRMAN. Where they haul it directly to the railroads, does it make much difference whether they have plenty of snow on the ground in the winter time?

Mr. KLINE. Yes, it does; unless they have very cold weather and can ice the road. They have got to depending principally on icing roads now for logging purposes—more than they do snow.

The CHAIRMAN. How do they ice a road?

Mr. KLINE. They will cut a road all the way from 18 to 20 feet wide, clear a strip, and then they go out and grub a place about 10 feet wide, take all the stumps out and level it up in nice shape, and they have then what they call a rut cutter that they put down, and they cut a sort of trench on each side just the width they are going to run the slabs, and after this cutting they have what they call a sprinkler or tank and it is constructed something on the principle that the tanks you see on the streets here are. There are various methods for filling that tank. When it is filled they put on all the way from six to ten horses and the first time it goes over the road the water comes in and fills the rut. They do that early in the fall, generally in the afternoon or at night, so when it passes over it freezes up, and then they keep passing that tank over the road until the ruts are pretty well filled up with ice.

The CHAIRMAN. That makes pretty smooth hauling for a sled?

Mr. KLINE. Yes, that makes a smooth haul for a sled. There are not very many logs hauled on snow. Where there is heavy snow, they have a snow plow and they plow the snow all out and then cut the rut. That is assuming that the road has been made. They cut the ruts out and fill them with ice. That is one method. They have another method of logging in this country, and that is with a wide sled with the runners 7 or 8 feet apart. They have another system where the runners are about 4 feet apart and they just make a solid ice road of that. On these sleds they hitch a single team. On the large sleds they hitch four horses.

The CHAIRMAN. Do you want to ask any questions, Mr. Norris?

Mr. NORRIS. No.

The CHAIRMAN. Have you any suggestions to make, Mr. Kline?

Mr. KLINE. No; I don't know as I have. Any information I have I will be glad to give you.

STATEMENT OF MR. EDWARD W. BACKUS, OF MINNEAPOLIS.

(Sworn and examined by the chairman.)

The CHAIRMAN. Will you give us your full name and your company?

Mr. BACKUS. Edward W. Backus.

The CHAIRMAN. What is your address?

Mr. BACKUS. Andrus Building.

The CHAIRMAN. What company are you connected with in this line?

Mr. BACKUS. With the Minnesota and Ontario Power Company.

The CHAIRMAN. Which has a plant at Rainy River?

Mr. BACKUS. Which is building there at the present time.

The CHAIRMAN. In connection with the Rainy River dam?

Mr. BACKUS. Yes, sir.

The CHAIRMAN. Is that what you call the Rainy River dam?

Mr. BACKUS. Yes, sir.

The CHAIRMAN. That is on the international boundary line?

Mr. BACKUS. Yes, sir.

The CHAIRMAN. How much of a plant are you constructing there?

Mr. BACKUS. Our initial plant will be 200 tons of news-print paper per day.

The CHAIRMAN. What water power do you have there?

Mr. BACKUS. Practically 30,000. It varies from thirty to thirty-five or thirty-six.

The CHAIRMAN. What fall do you get?

Mr. BACKUS. From 28 to 36 feet head.

The CHAIRMAN. We have in our examination this year ascertained that a good many of the mills in Wisconsin and the East have been very materially interfered with by the drought, lack of water. Is your plant likely to be affected that way?

Mr. BACKUS. There are no signs of it up to date.

The CHAIRMAN. Do you mean that the flow in the river there has not fallen?

Mr. BACKUS. Not materially. Our country is a flat country full of lakes and rivers. We have no extreme floods and no extreme low water. The water is very uniform.

The CHAIRMAN. In the construction of your plant up there, how do you expect to operate it as relating to the question of tariff on paper and pulp and the regulations in regard to the exportation of pulp wood from Ontario?

Mr. BACKUS. Our power is developed with a power house on each side of the river, a Canadian power house and an American power house. In the Canadian power house we can grind crown-land pulp wood. The paper mill will be on the American side.

The CHAIRMAN. Then if you use that crown-land wood you pay a tariff?

Mr. BACKUS. We would pay \$1.66 a ton duty; yes, sir.

The CHAIRMAN. Which is the best spruce country up there, the Canadian side or the American side, or is it similar?

Mr. BACKUS. Very similar.

The CHAIRMAN. What character of spruce do you have there?

Mr. BACKUS. The black spruce, a small growth of spruce that is hardly suitable for saw-log timber. It is what we call black spruce. The bark is black but the fiber whiter than the white spruce.

The CHAIRMAN. How large does it grow?

Mr. BACKUS. It ranges all the way from as thick around as your wrist up to—on high land, of course, there is some saw-log spruce, but generally from 3 to 10 inches at the butt.

The CHAIRMAN. Do you know what size it is when it reaches maturity?

Mr. BACKUS. That depends altogether on the kind of soil it grows on.

The CHAIRMAN. At what age does it reach maturity?

Mr. BACKUS. That is a pretty hard question to answer, for this reason. You take it in the center of a very wide swamp, and the spruce grows to the size of about 3 inches or 4 inches, and then it stops growing, because it is so wet that it don't continue its growth. As you go away from the center of the swamp, it gradually grows larger and larger, and when you reach the high land it grows large enough to be suitable for saw logs. I think the small spruce right in the middle of the swamp that is only 3 inches through is just as old as the high-land spruce which may be 18 inches through the stump.

The CHAIRMAN. Have you ever examined it to ascertain its age?

Mr. BACKUS. You mean inspected the layers?

The CHAIRMAN. Yes.

Mr. BACKUS. No; I have heard people tell about doing it. I never have done it personally.

The CHAIRMAN. What is the character of the spruce forests up there; is it pure spruce or mixed with other woods?

Mr. BACKUS. You get into a strip of spruce; sometimes it is all spruce; in other places it is mixed with other timber—balsam and poplar.

The CHAIRMAN. Are you a forestry man yourself?

Mr. BACKUS. I have been in the woods a good deal.

The CHAIRMAN. What is the growth up there, what kind of woods?

Mr. BACKUS. The woods in that country generally are pine, white and Norway spruce, poplar, balsam, a sprinkling of balm of Gilead, and a little hard wood on the high land.

The CHAIRMAN. Do you have any tamarack?

Mr. BACKUS. Tamarack and jack pine.

The CHAIRMAN. And cedar?

Mr. BACKUS. And cedar; yes.

The CHAIRMAN. Is there much cedar up there in your country?

Mr. BACKUS. A world of it.

The CHAIRMAN. You did not speak of it before, and so I thought possibly there was none.

Mr. BACKUS. I did not know you were interested in the cedar end of it.

The CHAIRMAN. We are interested in knowing what grows in the forests there. It often indicates the character of it.

Mr. BACKUS. I will tell you about how the timber grows in proportion in that country. Poplar is the predominating wood.

The CHAIRMAN. What do you mean by poplar, ordinary cottonwood?

Mr. BACKUS. White poplar.

The CHAIRMAN. Aspen?

Mr. BACKUS. No; it is a growth a little different here from what it is down South, but when you get it sawed into lumber it is about the same as the white poplar down South.

The CHAIRMAN. You do not mean basswood, do you?

Mr. BACKUS. No.

The CHAIRMAN. Do you mean cottonwood?

Mr. BACKUS. No.

The CHAIRMAN. There is no such thing as poplar, as a tree.

Mr. BACKUS. That is what we call it.

The CHAIRMAN. Poplar is a generic name covering forty different things.

Mr. BACKUS. That is what we call white poplar.

The CHAIRMAN. White poplar is the aspen. It does not grow very large.

Mr. BACKUS. It grows up in that northern country 2 feet or more through.

The CHAIRMAN. I do not think it is aspen, then. I never heard of aspen growing as large as that. It is a short-lived tree. That is what covers all this country when the timber is cut off usually.

Mr. BACKUS. You will see some of the finest poplar that you ever saw in your life, and that is the predominating wood.

The CHAIRMAN. Does that make good ground wood?

Mr. BACKUS. No; not the best. It makes very good sulphite.

The CHAIRMAN. It makes better soda fiber.

Mr. BACKUS. Yes.

The CHAIRMAN. If it is cottonwood.

Mr. BACKUS. Yes; better soda pulp for book paper. Of course, you can grind 10 per cent of it with the spruce, and you can put 40 or 50 per cent of it in with your sulphite.

The CHAIRMAN. I do not think you would find it very profitable to make it into sulphite. They told us they did not.

Mr. BACKUS. They may not always tell you facts.

The CHAIRMAN. I think as a rule they have been very fair with us about telling us facts.

Mr. BACKUS. You have not seen poplar in Wisconsin like our poplar up there, I promise you that.

The CHAIRMAN. I think yours is cottonwood.

Mr. BACKUS. You will change your mind on that, I am sure, when you see it. Now, I was going on. The next would be the spruce predominating. This balsam—

The CHAIRMAN. Is the spruce mainly on the lower ground?

Mr. BACKUS. Yes; swamp spruce.

The CHAIRMAN. In connection with tamarack?

Mr. BACKUS. Yes, sir. Then you come in with your tamarack and your jack pine, and in the cedar swamps, of course, the cedar predominates, and then on all the high land up there is your pine, white and Norway.

The CHAIRMAN. Is there very much hard wood up there?

Mr. BACKUS. Not very much.

The CHAIRMAN. What is the hard wood?

Mr. BACKUS. White birch and elm and a little maple.

The CHAIRMAN. It is the sugar maple, of course; hard maple?

Mr. BACKUS. Yes; very little—a little hickory and wood like that. There is not very much hard wood there.

The CHAIRMAN. Is the white birch that is up there the paper-leaf birch?

Mr. BACKUS. I do not know what you call the paper-leaf birch. It is not very plentiful.

The CHAIRMAN. Birch that they make the birch bark canoes from.

Mr. BACKUS. Yes. Of course, that country is so large up there if it were well timbered all over there would be timber enough there to supply the United States for the next twenty-five years. We have got 10,000,000 acres of land on that north divide in Minnesota. You

just figure that out for a well-timbered country like timber grows on the west coast and you would have an enormous supply. So that you can have a great deal of waste land, and you go through the country and spend a day and find half of the land waste, and you would say there can not be a great deal of timber in this country; but when you come to figure out that there is 10,000,000 acres in just a little spot in northern Minnesota you do not need it very heavily timbered in order to grow a great deal of timber.

The CHAIRMAN. What is your water up there? Lakes?

Mr. BACKUS. A great deal of water. It is a well-watered country.

The CHAIRMAN. Is there much of it too swampy for timber to grow in at all?

Mr. BACKUS. Not a large proportion, but quite a good deal. The land is too wet for timber to grow and be thrifty.

The CHAIRMAN. Is there any character of land that does not grow timber except where it is too wet?

Mr. BACKUS. No, sir.

The CHAIRMAN. On all the higher ground there is timber?

Mr. BACKUS. Yes; except where it has been burned off. All of the land has carried timber at times. Once in a while we find a patch of old growth opened up, but the most of the timber—in fact, nearly all of it—is second growth.

The CHAIRMAN. It has been cut over, then.

Mr. BACKUS. Oh, no; it has been burned—maybe a hundred years ago, or two hundred years ago—burned slick and clean, except, as I say, occasionally a spot here and there where you will get some nice white pine and make three and four logs to the thousand.

The CHAIRMAN. Have they had any forest fires there this year?

Mr. BACKUS. Not to speak of.

The CHAIRMAN. Do you have a practically inexhaustible supply of wood adjoining your mill?

Mr. BACKUS. Yes, sir.

The CHAIRMAN. From both the Canadian and the American side?

Mr. BACKUS. Yes, sir.

The CHAIRMAN. Do you think that there is plenty of spruce wood on the American side?

Mr. BACKUS. Yes, sir.

The CHAIRMAN. Why is it then that you propose to have your power plant and grind your wood on the Canadian side?

Mr. BACKUS. We do not. We propose to have a power plant on each side. You can not import the wood from crown land out of Canada and you have got to cut it into ground wood.

The CHAIRMAN. I understand, but you have got to pay a duty on the ground wood?

Mr. BACKUS. Certainly.

The CHAIRMAN. Why do you grind wood in Canada then if you have plenty of wood in the United States?

Mr. BACKUS. We want to utilize some of the power on that side.

The CHAIRMAN. That is a question of increasing the quantity of your power?

Mr. BACKUS. Yes.

The CHAIRMAN. It is not because wood is cheaper on the Canadian side?

Mr. BACKUS. No.

The CHAIRMAN. What is the difference per cord on the two sides?

Mr. BACKUS. It is about the same up there.

The CHAIRMAN. Do you know what pulp wood is worth up there now?

Mr. BACKUS. Well, you take crown-land wood there, the government charges 40 cents a cord for it—the Canadian government.

The CHAIRMAN. That is stumpage?

Mr. BACKUS. Stumpage; yes.

The CHAIRMAN. Tell us in reference to the character of contract that the Ontario government makes.

Mr. BACKUS. Well, the Ontario government makes a contract always providing that the wood shall be cut and ground in the Province of Ontario.

The CHAIRMAN. That is on public land. They do not sell the land. What sort of an arrangement do they make?

Mr. BACKUS. They just grant a right to cut timber on certain areas.

The CHAIRMAN. For how much consideration?

Mr. BACKUS. Forty cents per cord, as you cut it. In certain instances they have the areas put up for public tender, and then a bonus is bid, but the most of their concessions up to date have been granted in consideration of developing the water power and building the mills and building up the industries.

The CHAIRMAN. Without any bonus?

Mr. BACKUS. Yes.

The CHAIRMAN. How long a time do they give you in which to cut the wood?

Mr. BACKUS. Twenty-one years. Their permits are all twenty-one years, then renewable, of course.

The CHAIRMAN. Renewable at what rate?

Mr. BACKUS. Whatever the government rate happens to be at the time. They do not tie themselves down to 40 cents for any period of time.

The CHAIRMAN. Do they agree to renew the permit?

Mr. BACKUS. Yes; I think they usually do.

The CHAIRMAN. Have you a permit from the government there?

Mr. BACKUS. I might say yes and no, to part of the area.

The CHAIRMAN. You might say, but what do you say?

Mr. BACKUS. I do not care to go into that.

The CHAIRMAN. Yes; but we care to have you and we have the power. I do not wish to do anything that is improper.

Mr. BACKUS. I do not think you have a right to inquire into my affairs which deal with a foreign government, do you?

The CHAIRMAN. Most certainly. Certainly we have the power.

Mr. BACKUS. Well, then I can say that we—

The CHAIRMAN. Is there any effort, any desire, on their part for secrecy in such matters? We do not wish to interfere with your plans with the Ontario government, of course, but do they object to making public the terms upon which they grant permission to cut wood?

Mr. BACKUS. No; I do not know as they do. I do not know about that.

The CHAIRMAN. How far does that spruce forest extend to the north of you?

Mr. BACKUS. It extends a long ways.

The CHAIRMAN. How far does the Province of Ontario run west of your place?

Mr. BACKUS. About 75 miles.

The CHAIRMAN. How far north on a line north of you?

Mr. BACKUS. It goes clear up through the Province of Ontario. We are on the boundary line.

The CHAIRMAN. How far is the northern line of the province from your plant?

Mr. BACKUS. I could not tell without looking at the map. The Rainy River basin extends up about 70 miles north, and then beyond that tract of land there is still pulp wood and pine.

The CHAIRMAN. That is what I wanted to get at. Is there spruce land in the west of Ontario there?

Mr. BACKUS. Yes, sir.

The CHAIRMAN. The spruce forests extend clear to the western boundary of Ontario?

Mr. BACKUS. Yes, sir.

The CHAIRMAN. And beyond?

Mr. BACKUS. Not very much beyond; right at the boundary line.

The CHAIRMAN. Of course, the boundary line there, as I recollect it, runs in a northeasterly direction.

Mr. BACKUS. You mean between Manitoba and Ontario?

The CHAIRMAN. The Ontario boundary line.

Mr. BACKUS. Yes; I think that is true.

The CHAIRMAN. Does the spruce forest run off in a northerly direction for a considerable distance?

Mr. BACKUS. Yes, sir.

The CHAIRMAN. Have you ever been up in there at all?

Mr. BACKUS. I have been up on the north divide, around the Canadian Pacific country. We have had our men up in there.

The CHAIRMAN. What is the character of the forest up there?

Mr. BACKUS. Much the same.

The CHAIRMAN. How far south of you does the spruce forest extend?

Mr. BACKUS. Well, the portion that we are interested in goes to what we call the southerly end of the north divide, where the waters flow north. From there south on the waters coming this way and into Lake Superior it is all more or less spruce country.

The CHAIRMAN. What does the Rainy River flow into?

Mr. BACKUS. Into the Lake of the Woods, and then runs north and goes through Lake Winnipeg, and from there into Hudson Bay.

The CHAIRMAN. And the divide is about how far south of the Rainy River?

Mr. BACKUS. About 70 or 75 miles, varying. It is an average width of about 70 or 75 miles.

The CHAIRMAN. I thought you spoke of a divide on the north of you there.

Mr. BACKUS. I did.

The CHAIRMAN. What you call the height of land?

Mr. BACKUS. Height of land north of us.

The CHAIRMAN. Where does the water go from there?

Mr. BACKUS. It doesn't go down through the Rainy River. It flows over and goes into the same stream, though. Here is the Rainy

River basin, and here is the divide, and the water in the divide north of that empties part into the Lake of the Woods and part into the river below.

The CHAIRMAN. What facilities have you for getting spruce wood to your plant?

Mr. BACKUS. The railroads and all the streams coming into the Rainy River on both sides.

The CHAIRMAN. Do you expect to rely mostly upon driving logs down or bringing them by rail?

Mr. BACKUS. Both.

The CHAIRMAN. Is there any saw-log timber up there?

Mr. BACKUS. Oh, yes; a great deal of it.

The CHAIRMAN. What is it?

Mr. BACKUS. White and Norway pine. There is some saw-log spruce on the high land.

The CHAIRMAN. If we go up with you we will inquire more. Is height of land a Canadian term?

Mr. BACKUS. Yes.

The CHAIRMAN. Have you made an estimate of the timber that is adjacent to your plant?

Mr. BACKUS. Yes, sir.

The CHAIRMAN. Which is naturally tributary there?

Mr. BACKUS. Yes, sir.

The CHAIRMAN. Can you give us that estimate?

Mr. BACKUS. Do you mean to tell you what it is?

The CHAIRMAN. Yes.

Mr. BACKUS. I would rather not.

The CHAIRMAN. Have you any objections to it?

Mr. BACKUS. No objection to your knowing it, but I do not want to spend eight or ten years and a great many thousand dollars for the benefit of our competitors.

The CHAIRMAN. I do not quite see how it would affect your competitors to know what prosperity you have in store for yourselves. Have you declined to give that information to the Bureau of Corporations, which has been investigating this subject?

Mr. BACKUS. I have not been required to.

The CHAIRMAN. They have been gathering information from the owners of the land. I suppose you do not own very much of this land?

Mr. BACKUS. No.

The CHAIRMAN. You will undoubtedly acquire a great deal of information from our hearings. Don't you think you can afford to contribute something to the other mill owners in the way of information?

Mr. BACKUS. Perhaps so.

The CHAIRMAN. I think that is quite important. That is what we are endeavoring to ascertain. I wish you would give that to us.

Mr. BACKUS. Our estimate of spruce in Minnesota within the limits of the map that you have—

The CHAIRMAN. Which is practically the Rainy River basin.

Mr. BACKUS. Yes—is 11,179,500 cords of spruce and there is probably double that amount of poplar and probably one-half that amount

of balsam, what we call paper-making woods, besides the jack pine that they use occasionally.

The CHAIRMAN. I see by the map which you have based your figures upon that about half or a little more than half of that basin is in the province of Ontario.

Mr. BACKUS. Yes, sir.

The CHAIRMAN. Your estimate covers both sides of the line?

Mr. BACKUS. No, sir; I am just talking to you about those portions of these three counties.

The CHAIRMAN. On the American side of the line?

Mr. BACKUS. Yes, sir.

The CHAIRMAN. Have you made any estimate of the Canadian side?

Mr. BACKUS. Yes.

The CHAIRMAN. How much wood do you find there?

Mr. BACKUS. Not quite as much as there is on the Minnesota side.

The CHAIRMAN. Do you mean the forest is not quite so heavy?

Mr. BACKUS. A little more burned country. It has been subjected to more forest fires over there.

The CHAIRMAN. If that country all burned over once before, before the white people settled there, isn't it very liable to burn over again sometime?

Mr. BACKUS. I do not think the danger is as great now. There are more people to take care of it. In the days that the most of that country burned over when the fire started nobody knew anything about it until it was all burned.

The CHAIRMAN. Nobody seems to care very much about it now when it burns.

Mr. BACKUS. Oh, yes. Several fires started up there this fall and they were put out. They got a good start, too.

The CHAIRMAN. I heard a good deal when I was up in Wisconsin about their fighting forest fires, and I heard one gentleman connected with a railroad say that he had 500 men out fighting fires, and I went through over a hundred miles of fires on his line of road, and I did not see or hear of a man fighting a fire, and I saw a lot of his men setting fires.

Mr. BACKUS. I could not say as to that.

The CHAIRMAN. I think that is the experience nearly everywhere.

Mr. BACKUS. I know I was there when one nice fire got started and the mill men put it out.

The CHAIRMAN. Isn't it the experience everywhere that there are fires are more common the more people there are there?

Mr. BACKUS. Yes; I think that is true, excepting that there are more people to extinguish the fires if they try.

The CHAIRMAN. When you get into a country where there is forest and it is very dry, they are not very successful at extinguishing fires, are they?

Mr. BACKUS. Not when it gets a good start with a high wind. If you take it in time you can most always check it.

The CHAIRMAN. You think then that there is very little danger of that country up there burning over?

Mr. BACKUS. I think so. It is a very wet country, which is in its favor also.

The CHAIRMAN. No danger of its burning except at a very unusual season, but if such a season has occurred within a hundred or two hundred years, such a season may occur within a very few years again?

Mr. BACKUS. Oh, yes; that is possible.

The CHAIRMAN. But not probable, you think?

Mr. BACKUS. I think not.

The CHAIRMAN. Have you any opinion as to the tariff regulations affecting wood pulp and paper, and so forth?

Mr. BACKUS. I do not know as I understand what you mean by opinion. Do you mean whether I think it would be advisable?

The CHAIRMAN. Have you any opinion on that subject?

Mr. BACKUS. Why, naturally I think that the paper interests—

The CHAIRMAN. I have not been able to tell naturally what you would be in favor of.

Mr. BACKUS. If you are going to have protection in this country I think the paper business needs it as much as any other industry. It seems to me you would pretty thoroughly wipe a great big industry off the face of the earth, so far as the United States is concerned, if you remitted the duty on the manufactured article.

The CHAIRMAN. How would it be about the duty on wood pulp and ground wood?

Mr. BACKUS. That would not affect them so seriously.

The CHAIRMAN. It would be a benefit to your mill, I suppose, to take the duty off of ground wood?

Mr. BACKUS. I do not know as it would be any benefit and I do not know as it would be a detriment.

The CHAIRMAN. Do you know whether they have much spruce forest up north of Superior?

Mr. BACKUS. I do not know very much about that except what I have learned by hearsay. Our own money has been spent in cruising the country tributary to our plant.

The CHAIRMAN. That you have a pretty fair knowledge of?

Mr. BACKUS. That, I think, we know more about than anybody, than anybody has had any desire to know.

The CHAIRMAN. Is there any other good available water power in that basin?

Mr. BACKUS. No, sir. From the foot of the falls of Koochiching, that is our water power, I think there is only about 12 feet between that and the Lake of the Woods in the whole distance of 75 miles. There isn't anything there of commercial size. There are powers over in the Canadian Pacific country north of the Lake of the Woods, 150 or 200 miles north.

The CHAIRMAN. Is your water power affected by cold weather?

Mr. BACKUS. Not adversely; no, sir.

The CHAIRMAN. You never have bought any pulp wood up there, have you?

Mr. BACKUS. No, sir.

The CHAIRMAN. Is there any being cut there now?

Mr. BACKUS. Yes; some being cut and shipped down this way.

The CHAIRMAN. Do you know what it is worth up there?

Mr. BACKUS. I think about \$5 a cord.

FURTHER STATEMENT BY MR. KLINE.

Mr. KLINE. I would like to make a little explanation. You asked me if that was a spruce country. I told you it was not a spruce country. In reference to that I meant and had in mind tracts of spruce for logging. I have spent my life in logging. I have not paid any attention to this paper business. That is what I had in mind when you asked me if it was a spruce country.

The CHAIRMAN. That is what I understood you to mean. You had reference mainly to the large white spruce.

Mr. KLINE. The large spruce; yes, sir.

The CHAIRMAN. Not to the swamp black spruce?

Mr. KLINE. No.

FURTHER STATEMENT OF BENJAMIN F. NELSON, OF MINNEAPOLIS.

The CHAIRMAN. If you have any additional information on the subject of wood forests of Minnesota, we would be glad to have it. I do not remember how thoroughly we went into that question.

Mr. NELSON. We did not go into it very thoroughly. I do not remember of being called on only in a very general way as to the spruce supply.

The CHAIRMAN. When you testified before, you had your attention called to the scale of wages issued by the Northern Pine Manufacturers' Association?

Mr. NELSON. Yes, sir.

The CHAIRMAN. Which you thought was incorrect in some particulars. Have you had your attention called to the matter since you testified, in any way?

Mr. NELSON. Yes; I looked it up when I came home and that was an error. I think there are several errors in that scale of wages.

The CHAIRMAN. So that the testimony that you gave at the time you were satisfied with; is that right?

Mr. NELSON. Yes; so far as that was concerned. I think there were some little errors of the stenographer, but it didn't affect anything very materially.

The CHAIRMAN. Suppose it could be provided by legislation or by reciprocal agreement between the United States and Canada that wood pulp might be admitted free of duty from Canada into the United States, and that the exportation of pulp wood cut on the crown lands of Ontario and other provinces should not be in any way restricted, would that be advantageous or otherwise to the northwestern paper manufacturers?

Mr. NELSON. So far as the wood pulp and pulp wood is concerned I could see very little advantage; so slight that I would not be able to judge at this time whether it would be advantageous or not.

The CHAIRMAN. You think there is a sufficient quantity of spruce wood standing in Minnesota to furnish an ample supply in the future of pulp wood for ground wood both to the Minnesota mills and the Wisconsin mills?

Mr. NELSON. That would depend on the increased demand for pulp and its products. I have understood that there is more pulp wood in the State of Minnesota than Mr. Backus stated here to-day.

The CHAIRMAN. What do you mean by Mr. Backus's statement. The figures that he gave, do you mean?

Mr. NELSON. Yes, sir.

The CHAIRMAN. The estimate that he gave did not refer to the pulp wood of Minnesota at all.

Mr. NELSON. I understood that his eleven million five hundred thousand and odd cords referred to the pulp wood in Minnesota.

The CHAIRMAN. No.

Mr. NELSON. On the south side of the Rainy Lake basin?

The CHAIRMAN. No; the pulp wood in the United States in the Rainy Lake basin. The pulp wood runs east of the Rainy Lake basin, doesn't it?

Mr. NELSON. Oh, yes.

The CHAIRMAN. He only referred to the pulp wood in the Rainy Lake basin in the United States, not the entire pulp wood supply of Minnesota.

Mr. NELSON. Yes. We have always estimated that there is a much larger quantity than that in Minnesota, but it is general. We do not know specifically the amount, as none of us have made the examination that Mr. Backus has for the supply tributary to his mill.

The CHAIRMAN. Of course, Mr. Nelson, it was not very many years ago that they located their first paper mill in Wisconsin. It was a very few years ago that they located some of their new paper mills there. And yet they have been paying now \$11 a cord for spruce wood delivered f. o. b. cars at the station at the mill.

Mr. NELSON. Yes, sir.

The CHAIRMAN. They thought they had plenty of spruce wood when they located their mills there, near by. You may find yourselves in the same predicament.

Mr. NELSON. Of course, the paper industry of Wisconsin has increased very rapidly, and that is the reason why I say that it will depend on the demand for paper as to the length of time our pulp wood will last.

The CHAIRMAN. Do you remember what has been the percentage of increase in the amount of, say, for instance, news-print paper manufactured in the United States within the last ten or twenty years?

Mr. NELSON. No; I could not answer that question even approximately.

The CHAIRMAN. Of course, you know it has been an enormous increase.

Mr. NELSON. Yes, sir.

The CHAIRMAN. From the increase in the number of papers and the size of the papers?

Mr. NELSON. Yes, sir; and the number of mills built trying to keep up with the demand.

The CHAIRMAN. Don't you apprehend there will be just as rapid an increase in the future as there has been in the past?

Mr. NELSON. I see no reason why there should not be, unless it should be caused by adverse legislation.

The CHAIRMAN. Do you think adverse legislation will affect the quantity of paper that will be used, or any legislation will affect it?

Mr. NELSON. It affects other business. I do not see why it should not affect that.

The CHAIRMAN. It might affect the place of production, possibly.

Mr. NELSON. Yes.

The CHAIRMAN. So far as you know, are the paper manufacturers in Minnesota perfectly satisfied with the outlook as to the future supply of spruce pulp wood in the United States?

Mr. NELSON. Probably I can answer that better by stating our own company's attitude. We commenced manufacturing about eighteen years ago. We did not own a cord of spruce timber. We have no fear of the supply being exhausted in the near future.

The CHAIRMAN. What are you paying for pulp wood now?

Mr. NELSON. That depends on where we get it. We paid as high as \$6 a cord last year. It being a very favorable winter and the demand for logs not being so great, there was an oversupply put in. Of course, we loaded up heavier than we otherwise would. This year we will not pay so much. We do not know yet what we will pay.

The CHAIRMAN. You say you have been paying for the last year about \$6?

Mr. NELSON. Yes, sir.

The CHAIRMAN. Where, delivered at the mill?

Mr. NELSON. No; we pay that for it on board cars at different places.

The CHAIRMAN. At the place of origin?

Mr. NELSON. Yes; at certain places. Of course, where the freight was more we would pay less. We usually followed the delivered price at our mill, but sometimes the delivered price would be at Duluth, and that would be about \$7. Where the freight rate was $2\frac{1}{2}$ and 3 cents we paid \$6. That would make it cost seven or a little more, delivered to the mill.

The CHAIRMAN. What would that make it, about, to the man who delivered it f. o. b. cars?

Mr. NELSON. It would be \$6, if he was where it would be $2\frac{1}{2}$ or 3 cents. Three cents makes about \$1.20. It weighs about 4,200 pounds.

The CHAIRMAN. Who do you buy your pulp wood from?

Mr. NELSON. Probably a hundred different ones. We buy of whoever gets out any.

The CHAIRMAN. I mean the character of men.

Mr. NELSON. Farmers and men that make a business of small jobbing, merchants and men that get out cedar poles.

The CHAIRMAN. Do you get much from lumbermen?

Mr. NELSON. Very little. The lumbermen do not seem to care to bother with it.

The CHAIRMAN. Do you get much from the men who are getting out cedar posts and ties?

Mr. NELSON. Not a great deal.

The CHAIRMAN. Does most of it come from settlers who are clearing land?

Mr. NELSON. It comes largely from settlers clearing lands, who may sell it to the merchants and then they sell it to us.

The CHAIRMAN. You do not buy directly from the settlers, but it comes from settlers clearing land, very largely?

Mr. NELSON. Yes.

The CHAIRMAN. Is that land being cleared for agricultural purposes?

Mr. NELSON. Yes.

The CHAIRMAN. What do they raise on that land besides potatoes?

Mr. NELSON. They raise wheat and corn and grass.

The CHAIRMAN. Is it profitable farming?

Mr. NELSON. They seem to make a living on it. We don't know that the identical land they cut the spruce from is what they clear up. We know that they cut that spruce off from land to get money out of it. It may not be cut off of land that they are clearing at the time.

The CHAIRMAN. The point I was getting was as to whether, if this land is profitable for agricultural purposes, settlers will not be attracted to it and purchase it or take it up, and, of course, when the settler is on a farm that way, as a rule the first thing he wants to do is to get rid of the forests, isn't it?

Mr. NELSON. Yes, sir.

The CHAIRMAN. Of course, the demand for agricultural land is invading territory that a few years ago was considered unfit for agricultural purposes.

Mr. NELSON. Yes, sir.

The CHAIRMAN. If you had a great accession of settlers in this spruce territory, the spruce wood would not last long. would it?

Mr. NELSON. No, sir; I do not consider spruce land, as a general thing, good farming land, although I know of spruce land that raises fine hay, and some of it grows on high land. It does not seem to have any particular place to grow. It grows in bunches. Sometimes you will find it around the edge of marshes, tamarack growing in the marshes where it is wet and spruce growing on the drier land.

The CHAIRMAN. The black spruce is very apt to grow on low land, is it not?

Mr. NELSON. I have seen the black spruce growing everywhere.

The CHAIRMAN. Where does most of the spruce grow? On low land or high ground?

Mr. NELSON. The tamarack grows on low land. It can not grow anywhere else. The spruce can grow on both low land and high land in Minnesota. Often you will see a fringe of tamarack around a swamp and in the swamp, and occasionally spruce will be mingled in with it. After the tamarack stops growing, the spruce will grow closer together.

The CHAIRMAN. Why, then, do you think that this spruce land is not available for agricultural purposes?

Mr. NELSON. Well, I did not mean to say it was not available, but it is not so desirable. I said it will grow good grass, and some of it will grow grains.

The CHAIRMAN. I am still a young man—

Mr. NELSON. So am I.

The CHAIRMAN. Yes; and I can remember very distinctly when land in the corn belt in Illinois went begging at \$20 and \$25 an acre after I was grown to manhood. It now is hard to secure at \$150 an acre. Of course that means that less available land is invaded for agricultural purposes?

Mr. NELSON. Yes.

The CHAIRMAN. A few years ago the cut-off pine lands of Wisconsin and Michigan were considered valueless, and much of it reverted to the State because people would not pay taxes on it. That land is now considered agricultural land, a great deal of it. Isn't

it quite likely that the same thing will occur in Minnesota, especially since we have commenced to agitate so much the question of the drainage of these lands?

Mr. NELSON. It has already occurred in Minnesota.

The CHAIRMAN. If it occurs so that settlers come into this spruce country of yours, how long do you think the spruce forests will last? Any longer than the hard-wood forests of Ohio and Indiana have lasted?

Mr. NELSON. Probably not. As soon as the settlers want the land that the spruce is growing on, the spruce has got to be cut off. There has been an advance in land in Minnesota proportionately greater than that you mention in Illinois. For instance, in my short life we have cut the timber off of thousands of acres of land and stopped paying taxes on it. Then it became wanted, and we thought we were doing well in selling some 20,000 acres for \$1.75 an acre. That land has since sold for \$10 an acre, and that is a greater ratio of increase than Illinois. But that does not apply particularly to spruce, although there was some spruce grew on considerable of it. The spruce is farther north and growing usually on different land from the pine, although occasionally you will find the spruce and pine growing together and both apparently doing well.

The CHAIRMAN. Is not the spruce, as a matter of fact, more likely to grow on rich land than the white pine?

Mr. NELSON. No; I have seen white pine growing on rich land. White pine grows on richer land than Norway does. Spruce grows on both.

The CHAIRMAN. You think if the Government should adopt no policy of forest conservation and should make no provision for the protection of spruce forests in the future and make no arrangement by which spruce could be exported from Ontario, that the paper mills of the Northwest would still have an ample supply of spruce pulp wood at home?

Mr. NELSON. No, sir; I do not think that.

The CHAIRMAN. I thought that was what you stated.

Mr. NELSON. I think that the Government ought to use every reasonable means possible to conserve our forests.

The CHAIRMAN. They ought to do that regardless of the supply?

Mr. NELSON. Yes, sir. If we do that we will have a better supply of spruce wood than of some things that we need so badly. We have great iron mines in Minnesota and we expect they will be exhausted. Iron ore can not be produced as quickly as spruce. I do not wish to be understood as saying that our supply is inexhaustible.

The CHAIRMAN. Is there any change in the situation up here as to wages in the paper mills or in the forests?

Mr. NELSON. There are a great many idle men; more this year than we have ever had before, on account of the depression in the lumber business; and wages will be reduced this winter very materially.

The CHAIRMAN. That is in the forests?

Mr. NELSON. Yes, sir.

The CHAIRMAN. Is there likely to be—I do not wish to ask an impertinent question—a reduction of wages in the mills?

Mr. NELSON. There will be no reduction there, I think, but the man that gets out the pulp wood will work for less than he did last winter.

The CHAIRMAN. You look for a lower price on pulp wood next year, I suppose?

Mr. NELSON. Yes, sir. We are not making contracts this year at anything like we did last year, because we carried over a large amount, and we find our competitors have done the same, and we have all been short of water. We have not been able to grind the wood that we had already put in.

The CHAIRMAN. You all have a large stock of wood on hand, as I understand?

Mr. NELSON. Without any exception, so far as I know, we all have large stocks. That is for two reasons, first, last winter was such a very favorable winter for putting in the wood and this summer has been so very dry that we could not grind it.

The CHAIRMAN. Is there any change in the paper market recently?

Mr. NELSON. Yes, sir; we are getting more money for paper now than we did when we met before.

The CHAIRMAN. That is on account of the drought?

Mr. NELSON. On account of the demand and supply.

The CHAIRMAN. There is no increased demand for paper, is there?

Mr. NELSON. There is in our territory.

The CHAIRMAN. No increased use of paper?

Mr. NELSON. An increased price. We increase the price just as fast as we can, and whenever the demand is in excess of what we have got to sell, we will get as much for it as we can.

The CHAIRMAN. What is the price of ground wood now?

Mr. NELSON. I do not know of anyone that has got it to sell. I have been trying to buy it for some time. I bought it last spring at \$30 a ton.

The CHAIRMAN. There are a lot of mills that have to sell it if they make any. They don't do anything else with it.

Mr. NELSON. I think they are all sold out.

The CHAIRMAN. Do you get all your pulp wood from Minnesota?

Mr. NELSON. Yes, sir.

The CHAIRMAN. Do you know whether there is any pulp wood imported here from Ontario and other parts of Canada by any of the mills?

Mr. NELSON. No; I am sure there is not.

The CHAIRMAN. Have you made any investigation of the spruce forests out West?

Mr. NELSON. Only in a general way, in buying timber lands out there. We find considerable spruce there that is of a quality to make paper of.

The CHAIRMAN. What part of the State do you get most of your pulp wood from?

Mr. NELSON. We get it from the northern part of the State. We get some put into the Mississippi River, and it is floated down to our mill. We purchase of the M. and I. Railroad, running from Brainerd.

The CHAIRMAN. What is the M. and I. Railroad?

Mr. NELSON. Minnesota and International, a part of the Northern Pacific system, which runs from Brainerd to International Falls. We get the largest part of our supply along that line, although we purchase on the Great Northern and on the Northern Pacific main line. The M. and I. is a branch of the Northern Pacific.

The CHAIRMAN. Do the two Wisconsin companies that buy pulp wood buy along this same line or go farther east?

Mr. NELSON. They buy right along with us.

The CHAIRMAN. In competition?

Mr. NELSON. Yes, sir.

The CHAIRMAN. With the lumber business at such a very low ebb and with the mills stocked up fully on pulp wood, there is likely to be very slight demand for pulp wood this winter, isn't there?

Mr. NELSON. My impression is the demand will decrease 30 or 40 per cent from what it was last year.

The CHAIRMAN. Is there any difference in the value of black spruce and white spruce in the making of ground wood?

Mr. NELSON. We do not consider there is difference enough to make any change in the price or in purchasing it.

The CHAIRMAN. Is what you get mostly small wood.

Mr. NELSON. Yes; we get largely small wood.

The CHAIRMAN. Do you take it down as low as two and a half inches?

Mr. NELSON. Our contracts call for 5 inches, but we accept it without question if it is 4 inches. When it gets down to 3 we do not want it, but we often take it at some price. There is so much waste barking that small wood that the loss is very much greater than it is on the larger.

The CHAIRMAN. We saw a great deal of it that was not over 2½ inches, and some of it that was not that large, at the Wisconsin mills.

Mr. NELSON. We have had it at our mill only 2 inches, but it is not profitable to handle at all.

The CHAIRMAN. There is quite a difference in waste between that and large wood?

Mr. NELSON. Oh, yes; in the expense of barking.

The CHAIRMAN. The expense of rossing or barking besides the waste?

Mr. NELSON. Yes, sir.

The CHAIRMAN. Why don't the lumber men when they are cutting forests up here, furnish you with some pulp wood. Isn't it profitable to them?

Mr. NELSON. Well, the lumber men have connection with paper mills.

The CHAIRMAN. Certainly not all of them.

Mr. NELSON. No, not all of them. But there is a friendly feeling between the Weyerhaeuser interests and the Northwest Paper Company. The Weyerhaeuser people have large amounts of pine land. Mr. Walker has a large amount of pine land and I have some. Spruce grows on it, and between us we manage to run the Hennepin Paper Company.

The CHAIRMAN. Is Mr. Walker interested in the Hennepin Paper Company?

Mr. NELSON. Yes, sir.

The CHAIRMAN. Do you furnish your mill there with some pulp wood from your lumbering operations?

Mr. NELSON. Very little.

The CHAIRMAN. Why not?

Mr. NELSON. We buy it of parties that have it for sale.

The CHAIRMAN. Of course, it is a question of profit?

Mr. NELSON. That is it.

The CHAIRMAN. That is the reason I asked; why isn't it profitable for you in lumbering operations to save the smaller wood for pulp wood?

Mr. NELSON. Well, it is such a small amount that it is not profitable to save it. We can buy it cheaper than we can save it. Occasionally we take a small amount.

The CHAIRMAN. In lumbering you saw it down to about 5 inches?

Mr. NELSON. Some millers saw 5 inches. I never found it profitable to saw as low as 6 inches. We usually make our contracts requiring the logger to cut as low as that; get him to cut 8 and 10 inch timber.

The CHAIRMAN. When you lumber and do not saw down as low as 6 or 7 inches, is it or is it not profitable to save that? There must be more or less of the timber that runs 6 or 7 inches.

Mr. NELSON. It depends more or less on the expense of saving it. At times it would be and at other times it would be a loss to attempt to save it.

The CHAIRMAN. What expense is there about saving it?

Mr. NELSON. At times the conditions may be such that it would be profitable and at other times the conditions may be such that it would be a loss to attempt to save it.

The CHAIRMAN. What are those conditions?

Mr. NELSON. It depends on where it is cut and where it is to be hauled and how much of it there is. If there is a small amount of it there would be a loss. If there is considerable of it it could be handled profitably.

The CHAIRMAN. As I understand from your statement, as a matter of fact in lumbering operations the small wood is not usually saved here for pulp wood. That is, the ends or the limbs or anything of that sort?

Mr. NELSON. Only to a very limited extent. When the lumberman gets the saw log cut off, the butt of the tree, and he runs it up to, say, 6 inches, the top is very knotty and it is only worth about half what good pulp wood is, and it does not pay to bother with it.

STATEMENT OF WILLIS J. WALKER, OF MINNEAPOLIS.

(Sworn and examined by the chairman.)

The CHAIRMAN. Give your name.

Mr. WALKER. Willis J. Walker.

The CHAIRMAN. You are a son of Mr. T. B. Walker?

Mr. WALKER. Yes, sir.

The CHAIRMAN. He is one of the best-known lumber experts—timber experts—in the Northwest, isn't he?

Mr. WALKER. Yes, sir; I think he is.

The CHAIRMAN. What can you tell us in reference to the forests that may be used for pulp-wood purposes, especially in Minnesota?

Mr. WALKER. As I understand it, the only wood that is really available at the present time is the spruce, although, of course, a while ago they did use poplar for certain kinds of paper. The territory that I am most familiar with lies west of Hibbing. That is on the Iron

Range. The spruce actually begins in spots this far south in the swamp—that is, scattered spruce, but it does not get to be big enough to really be considered until you get above Little Falls toward the Brainerd country. There was considerable in that which has been very largely cut out now. From Brainerd to Leech Lake and west of that territory it grows all over, but in small amounts. It is only in bunches through the swamps. And along the tributaries of the Crow Wing River there is considerable in bunches through there, but it never has come down in very large quantities. It is not a heavy spruce country at all. North of that country between the Great Northern road, passing through Bemidji and Park Rapids, bounded on the east by Leech Lake and the west by the White Earth Reservation, it is only in comparatively small quantities. That is a Norway country, which is sandy without large swamps, a country we are logging in at present, right through there. The timber is better than three-fifths Norway and the soil of sandy nature, so that the spruce is quite scattering. East of there between that territory and Leech Lake around on the reservation there is not much spruce. That is a high pine country around the reservation. Of course, there is spruce in spots. Beginning on the east side of Leech Lake, down the Leech River and the Pokegama and through to Hibbing, there is really quite a large quantity of spruce in bunches, but the real spruce country begins north of the Great Northern road, reaching from Croston to Duluth, across between Leech Lake and Winnebagoish and from there through that country north; in fact, clear through to the boundary outside of the big swamp, is a big growth and quite a large percentage of spruce in bunches. A large amount of the land is low through there and favors the growth of the spruce, and that reaches westerly to pretty near the Red Lake. North of Red Lake you find the swamp country, between Red Lake and the boundary. I have never been directly north from Red Lake, but we have had cruisers through there and they tell us there is a good deal of spruce on the islands in the swamps through there. We were looking for it on a saw-log proposition and there wasn't enough, so that we have operated in that country. It is largely muskeg swamps with tamarack and bunches of spruce in spots.

The CHAIRMAN. The low, wet ground usually has tamarack?

Mr. WALKER. Yes. That will grow on even a floating muskeg.

The CHAIRMAN. What is muskeg?

Mr. WALKER. Muskeg is a floating bog and ground that is so soft that you will break through it. Quite often it is so soft that you will go through into the water under it. Tamarack will grow even in that in spots.

The CHAIRMAN. Around the edge of that the spruce grows?

Mr. WALKER. It grows around the edges and up onto the side hill. Where it gets very wet the spruce won't grow clear out into that like the tamarack does. The main growth of spruce is in bunches in through the swamps that are hard bottom and on the side hills reaching up from these swamps, although the scattered growth does grow all through the timber, but it is not the main bunch of it. The real spruce land is low, swamp land and the side hills reaching down into it.

The CHAIRMAN. You do not find very much spruce that is fit for saw logs, do you?

Mr. WALKER. No; it is not a large quantity, though cutting through a large territory, and cutting through as we have at our mill where we are taking pretty nearly everything, we get quite a sprinkling of small logs.

The CHAIRMAN. Is that young spruce or old spruce?

Mr. WALKER. I could not say as to that. I always took it to be spruce that grew under the more favorable conditions. It seems to be the spruce on the better lay of ground, or, perhaps, more room to grow in. I do not know as to the age. I presume it is older than some of it, but I think it is more a question of opportunity to grow.

The CHAIRMAN. Most of the spruce up here is small?

Mr. WALKER. Yes; it is small growth timber.

The CHAIRMAN. Will it grow large if it has favorable conditions?

Mr. WALKER. I think it will, because some of it gets pretty good size. Fifteen or 16 inches you see them up there. Those are scattered trees. I never saw a growth of spruce where it was all large.

The CHAIRMAN. If you have a white pine forest with trees 6 or 7 inches in diameter you would hardly think it profitable to cut it if you owned it, would you?

Mr. WALKER. I never have seen a bunch quite as small as that. We have cut white pine that went twenty-three to the thousand, and twenty million to the bunch. That would be pretty nearly that size. You have got to cut it. There is almost nothing else you can do with it, because such a growth means it is growing very close together, and the trees have no room, so that I don't believe it would ever grow very large.

The CHAIRMAN. Are the Minnesota forests disappearing or is there apparently as much in sight now accessible as there ever has been?

Mr. WALKER. Of course, they are steadily disappearing.

The CHAIRMAN. I am referring to the point of accessibility.

Mr. WALKER. They are opening up new timber with railroads and one thing and another about as fast as they are cutting it off. The logging territory is changing. It is continually advancing north.

The CHAIRMAN. Is there much virgin forest left in Minnesota?

Mr. WALKER. Yes; there is a great deal.

The CHAIRMAN. Where is it?

Mr. WALKER. West of Leech Lake, lying between Leech Lake and Itasca Lake, there is several hundred million that has not been touched. On the White Earth Reservation west of that there is quite a large quantity. I never have had it estimated, but loggers tell me there is several hundred millions in there. Straight east of Red Lake there is quite a large territory, between Red Lake and the Big Fork country, that has never been touched. Then there is a bunch of seven or eight hundred million in the neighborhood of Grand Marais, largely white pine. North of Hibbing and of the Iron Range there is a large territory that has never been touched.

The CHAIRMAN. Do you think there has been very much destruction of forests up here this summer by fires?

Mr. WALKER. No, I do not believe there has. From what I saw of the country where the fires ran through and the reports I get from cruisers through that country, there was enough of the green leaves and the brush and trees to hold the fire onto the ground. It did not run through the tops and through the timber itself. So that it was

a ground fire and there was practically no timber, so far as I have been able to hear, killed. That was due to the time of year that it burned.

The CHAIRMAN. Have you any opinion as to the effect of removing the tariff on pulp wood, or other lumber or timber product, in regard to the effect on the destruction of the American forests?

Mr. WALKER. That is a pretty big question. I should think that letting in the wood would naturally reduce the value of wood in this country, so that there would be more of it left exposed of the spruce to burn up, because it is a question now of how far you can haul the stuff and get enough out of it to pay the expenses.

The CHAIRMAN. I do not quite understand what you mean when you say more left of the spruce to burn up.

Mr. WALKER. I mean in our own case where we are logging through our white pine we can not afford to cut the spruce wood except in particular cases, because the cost of logging that scattered spruce and taking it out to the railroad would be more than we get for the product.

The CHAIRMAN. Can't you afford to do it where it is cut for saw logs?

Mr. WALKER. Where it is cut for saw logs it is worth more to us as logs than it is for pulp.

The CHAIRMAN. But you can afford to take it out for saw logs where it is of sufficient size, can't you?

Mr. WALKER. Oh, yes; wherever we are cutting other timber we can afford to take the spruce saw logs, because spruce makes good lumber.

The CHAIRMAN. As a matter of fact, you do not cut very much pulp wood, do you?

Mr. WALKER. Almost none.

The CHAIRMAN. So you do not do it now anyhow

Mr. WALKER. No.

The CHAIRMAN. You leave it to burn up?

Mr. WALKER. We leave it in the hope that we can use it at some later date.

The CHAIRMAN. As a matter of fact, it does largely burn up, I suppose?

Mr. WALKER. I think that is the future of it, through a cut-over country that way.

The CHAIRMAN. Isn't there any way that can be devised by which forest fires can be prevented from spreading?

Mr. WALKER. In this State I do not believe it is possible. In California we are keeping crews of men clearing up around the trees and through our timber there because there is practically no underbrush. but in this country if you stop a fire, keep it out of a bunch of timber for several years until the débris gets very thick, when the dry season comes on you lose timber and everything. I think it would be the destruction of the timber if you could stop it for a few years. It is only in reasonably frequent burning that we can save the valuable timber.

The CHAIRMAN. The Forestry Service takes considerable credit to itself because they do not have many forest fires in the national forest reservations. Why can not the same thing be done in the lands of Minnesota?

Mr. WALKER. I think if they have had a small amount of fire in Idaho and Washington on their reservations, they are lucky; that is all. In California it can be done because the dry season kills the brush. The brush can not grow through the dry season, so that the fires there work along the ground.

The CHAIRMAN. They have large forest reservations in Idaho and the other Northwestern States, much larger than they have in California.

Mr. WALKER. Yes.

The CHAIRMAN. They have had very few forest fires this last season, whereas there have been immense forest fires, I guess, in this State. There certainly have been in Wisconsin.

Mr. WALKER. They have had very large fires in the northeastern part of the State. When a heavy forest fire starts through a heavy undergrowth back of the wind I think it is a question of getting away from it. I do not think anything can stop it until the conditions change. We had last year some logs in the woods around our mill and the fires came earlier than we expected, and it took 500 men, about, to save what we could of those logs and our camp, to say nothing of the timber.

The CHAIRMAN. Of course you can not put a fire out in a forest where it is burning and everything is favorable, but couldn't you have division lines in some way where the fire could be stopped?

Mr. WALKER. If you could afford to cut wide paths through the forest and keep the brush out that burns worse than the timber, I presume it could be stopped in that way—by very wide lanes. It would take very wide lanes and they would have to be kept very clear of brush. I think cutting it up in that way would be effectual.

The CHAIRMAN. You might cultivate it and raise potatoes on it.

Mr. WALKER. I think there would have to be something of that kind to make it practicable. They can raise potatoes in that kind of clearings. That country will raise good vegetables.

The CHAIRMAN. Have you large quantities of land out West?

Mr. WALKER. In California; yes, sir.

The CHAIRMAN. What does that consist of?

Mr. WALKER. It is a mixed growth of yellow pine—that is, the Western yellow pine, fir, white spruce, and a scattering of cedar.

The CHAIRMAN. Do they use fir any for pulp wood, do you know?

Mr. WALKER. What they call the white spruce there, I understand, is available for pulp. In fact, they are using it at several points there now. There is one mill on the Southern Pacific at Royaltown, I think it is, logging that spruce.

The CHAIRMAN. Do they make ground wood?

Mr. WALKER. Yes; ground wood. They say it is practically the same as our white spruce.

The CHAIRMAN. How about the fir; is that what they call Oregon fir?

Mr. WALKER. Yes; the same thing, only growing a little farther south. My understanding has been that that won't make paper unless it is boiled and treated to take out the pitch. That is being done farther north in Oregon.

The CHAIRMAN. It is full of pitch?

Mr. WALKER. Yes, relatively. Of course, it is not like the southern pine, but there is quite a large amount of it.

The CHAIRMAN. Do you have any forests in Idaho or Montana?

Mr. WALKER. No; nothing.

The CHAIRMAN. Are you familiar out there?

Mr. WALKER. No; I have only been through it.

The CHAIRMAN. How about Canada, Ontario?

Mr. WALKER. We have nothing in Canada. Only in Minnesota and California.

The CHAIRMAN. How much of the forests do you people own in Minnesota?

Mr. WALKER. Of course, we have a good deal of the cut-over land; we have, I should say, a couple of hundred million left.

The CHAIRMAN. A couple of hundred million feet?

Mr. WALKER. Yes.

The CHAIRMAN. What would be the acreage of that?

Mr. WALKER. I should judge that would cut about 5,000 feet to the acre.

The CHAIRMAN. That is land you are holding for logging?

Mr. WALKER. We are logging it now; we are into it.

The CHAIRMAN. And sawing it up?

Mr. WALKER. Yes.

The CHAIRMAN. Do you get out ties or poles or anything of that sort?

Mr. WALKER. We have at times, under some particular conditions, but we do not make a business of it.

The CHAIRMAN. Is any of your land in this spruce-wood territory in the northern part of the State?

Mr. WALKER. In two townships only.

The CHAIRMAN. You have not logged any of that, have you?

Mr. WALKER. No; it is not touched.

The CHAIRMAN. You haven't cut into it at all?

Mr. WALKER. No.

The CHAIRMAN. That is not available for saw logs, is it?

Mr. WALKER. Yes; it is now by coming down the Big Fork River.

The CHAIRMAN. I mean the timber.

Mr. WALKER. It is saw-log timber.

The CHAIRMAN. It is not like ordinary spruce timber up there?

Mr. WALKER. No; it is three-fifths big white pine.

The CHAIRMAN. Is there a good deal of good white pine up there on the higher land?

Mr. WALKER. There is not a large supply of what you would call first-class white pine, such as they used to get upon Pokegoma Lake and the head of the Swan River. In that northern country the white pine is not first class, but it is good, fair, average pine, and there is a good deal of white pine through there of that grade.

The CHAIRMAN. Do you suppose your father would be willing to testify before the committee, tell us his opinions and impressions in regard to the present future available supply of forest products in the United States?

Mr. WALKER. I feel sure he would.

The CHAIRMAN. We would be very much pleased to have him do so, and probably could come back here for that purpose if necessary.

Mr. WALKER. He has put in a great deal of study and work on that one question, and I know he would be glad to give whatever information he could.

The CHAIRMAN. That is a service he might well, and I think pleasantly, render to the coming generations. I wish you would ask him.

Mr. WALKER. Yes. He went out of town this morning. I think he will be back some time this afternoon.

The CHAIRMAN. If we don't take his testimony before we go away, and I do not know just when that will be, we will come back this way if you will talk with him about that.

Mr. WALKER., Yes, sir.

STATEMENT OF F. B. LYNCH, OF ST. PAUL, MINN.

(Sworn and examined by the chairman.)

The CHAIRMAN. Give your name.

Mr. LYNCH. F. B. Lynch.

The CHAIRMAN. Your business?

Mr. LYNCH. Lumberman.

The CHAIRMAN. What mills are you connected with?

Mr. LYNCH. The mills belonging to the Union Manufacturing Company, in Canada.

The CHAIRMAN. Are all of your mills in Canada?

Mr. LYNCH. All of our mills are in Canada. I have some timber interests on this side, but not as a manufacturer.

The CHAIRMAN. Are you familiar with the forestry conditions in that part of Canada just north of us here?

Mr. LYNCH. North and west of us; not east.

The CHAIRMAN. North and west of Lake Superior?

Mr. LYNCH. Yes, sir.

The CHAIRMAN. Will you describe the forestry conditions to us in your own way, as well as you can in a general way.

Mr. LYNCH. If you would explain a little bit more just what you want. It is a pretty big question.

The CHAIRMAN. Of course, what we are especially interested in is the question of the supply of pulp wood which, in the main, reduces itself to spruce wood, I think, in this part of the country. Spruce forests, in other words.

Mr. LYNCH. In the region north of Lake Superior and in the western part of the Province of Ontario, the northeastern part of Manitoba, the eastern part of the Province of Saskatchewan, there are very large areas of land which have a great deal of small spruce timber. Part of it is fit for saw timber and part of it is only good for pulp wood. As to the exact number, or even the approximate number of acres that there is in that area I am unable to say. There is a great deal of it.

The CHAIRMAN. Do you know whether that information has ever been collected by anybody?

Mr. LYNCH. There has been nothing definite ascertained.

The CHAIRMAN. How far west do the forests extend before the break comes?

Mr. LYNCH. The line of the Red River is the boundary of it on the east and as far north as Lake Winnipeg; north and west of Lake Winnipeg it extends nearly to the Great Slave Lake in scattered tracts, not solid forests.

The CHAIRMAN. How far west does it extend on our north boundary line?

Mr. LYNCH. The west end of the Lake of the Woods would be practically the end of it, the Red Lake.

The CHAIRMAN. West of that it is what?

Mr. LYNCH. West of that it is practically a prairie country.

The CHAIRMAN. What do the forests up there consist of in the main?

Mr. LYNCH. In the region that I have spoken of, almost exclusively spruce. In the region directly north of Lake Superior there are considerable bodies of white pine.

The CHAIRMAN. Where are your mills up there?

Mr. LYNCH. Our mills are all west of the territory that I have spoken of, except one mill 350 miles northwest of Winnipeg.

The CHAIRMAN. What character of timber do you use in your mills?

Mr. LYNCH. Spruce.

The CHAIRMAN. You log spruce?

Mr. LYNCH. Yes, sir; we log spruce.

The CHAIRMAN. Is there a considerable quantity of large spruce there?

Mr. LYNCH. Well, in that area there is probably a billion feet of spruce that is suitable for saw timber.

The CHAIRMAN. How large?

Mr. LYNCH. As we express it, running fifteen or sixteen logs to the thousand, that would be spruce timber 12 inches at the butt and upward.

The CHAIRMAN. Is that white or black spruce?

Mr. LYNCH. It is mostly black spruce.

The CHAIRMAN. What proportion would you estimate of that spruce is fit for saw logs, as compared with the whole?

Mr. LYNCH. I have given you the proportion that I think is fit for saw logs, a billion feet.

The CHAIRMAN. That is the amount, but what proportion? Can you give us an estimate of about the proportion?

Mr. LYNCH. There is probably twice as much more, possibly three times, that would be fit for pulp wood.

The CHAIRMAN. Does the saw-log spruce grow on higher ground?

Mr. LYNCH. No, sir; mixed in.

The CHAIRMAN. This spruce you speak of for pulp wood, won't it grow larger?

Mr. LYNCH. It is very slow growth.

The CHAIRMAN. How old do you estimate these saw logs to be?

Mr. LYNCH. Probably 50 to 75 years old.

The CHAIRMAN. Some gentleman stated here a while ago that he thought some of that small spruce was 150 years old.

Mr. LYNCH. It is possible, but I would think that was even a slower growth than I have mentioned. We can estimate that approximately by burned areas and the growth over burned areas. There is a region up there that I know of where there is now a considerable body of spruce timber that would be suitable for pulp wood that was burned over. The Indians say, fifty years ago, and the remains of the old burned logs are still there in some cases.

The CHAIRMAN. That would be what sized spruce?

Mr. LYNCH. That stuff would run about 8 inches.

The CHAIRMAN. Is that in very low ground or fairly high ground?

Mr. LYNCH. Almost all spruce grows on rather low ground. The higher areas are apt to be barren in that country.

The CHAIRMAN. Do you think spruce timber there would grow to be saw logs in fifty years?

Mr. LYNCH. Well, I said from fifty to seventy-five. I think seventy-five years would bring it to 10-inch stuff at the butt.

The CHAIRMAN. I suppose it is an easy matter to ascertain the age of these logs that you are cutting?

Mr. LYNCH. I presume it would be for a skilled forester who is used to doing that.

The CHAIRMAN. Are any of your mills operated with water power?

Mr. LYNCH. No, sir.

The CHAIRMAN. Is there much water power up there?

Mr. LYNCH. No, sir; not very much.

The CHAIRMAN. How wide a stretch is that now; what is the distance from the west end of Lake Superior to the Lake of the Woods, where the forests cease?

Mr. LYNCH. I think about 200 miles.

The CHAIRMAN. How far north would those forests extend?

Mr. LYNCH. I don't know. They extend a long ways.

The CHAIRMAN. You don't know where the north boundary is?

Mr. LYNCH. I don't know where the north boundary is; no, sir. I have seen cruisers who told me that there were heavy bodies of light spruce timber east of James Bay, which is probably 300 miles north.

The CHAIRMAN. Is it practicable to bring that spruce from north of the height of land over this way for use?

Mr. LYNCH. I do not think so, except by rail.

The CHAIRMAN. The rail facilities for getting into that forest are not very numerous, I judge.

Mr. LYNCH. The only way you can get in there now is with a canoe.

The CHAIRMAN. Is that land up there subject to be used for agricultural purposes, where the spruce is?

Mr. LYNCH. This extreme northern territory, no, sir; I don't think so.

The CHAIRMAN. How will they get the spruce out of there unless they carry it north, drive it north on the streams?

Mr. LYNCH. Well, there are several railroads contemplated into the Hudson Bay territory now and one being built. It would be a comparatively small matter, I presume, to get the stuff out after they build that.

The CHAIRMAN. That is, they could float it down on the streams and pick it up.

Mr. LYNCH. It could be floated down to the mouths of the streams and milled there and taken across to the railroads.

The CHAIRMAN. But would it be practicable to bring it as pulp wood from there to here?

Mr. LYNCH. I don't think so. It would be absolutely impossible to raft it across Hudson Bay.

The CHAIRMAN. Why?

Mr. LYNCH. A raft would not live in those waters. You could not build one that would live.

The CHAIRMAN. Are the waters so turbulent?

Mr. LYNCH. The bay is very stormy; yes, sir.

The CHAIRMAN. What supply of pulp wood is there up there which in any event might be utilized by the mills in the United States if there were no prohibition?

Mr. LYNCH. I do not know.

The CHAIRMAN. That is what we are very anxious to find out, and I do not know whether anyone knows or not.

Mr. LYNCH. I do not believe anyone knows. There is a very large amount of it, but I do not think anyone has any more than just an idea that there is a very large amount of it. It is a very wild, desolate country. It has only been gone over by cruisers and Indians.

The CHAIRMAN. Do you have any judgment as to whether that supply of spruce wood is practically inexhaustible?

Mr. LYNCH. I believe it is so considered; yes, sir.

The CHAIRMAN. I mean would it reproduce itself in that country fast enough to meet a great demand if cut off for immediate use?

Mr. LYNCH. No; I do not believe any country is inexhaustible in that sense.

The CHAIRMAN. Of course, here where we cut off a forest it is not very apt to go back to a forest; it is very apt to be utilized for other purposes.

Mr. LYNCH. Well, I do not think that that is true of it there. I think that that northern country will be settled but very slowly. The soil is poor, the climate is severe, and I think it will be a great many years before there will be any number of settlers up there; but how fast that timber would grow up again is something that would be very hard for me to even estimate on. The area that I have spoken of is a couple or three hundred miles west of there, where the soil is good and the climate is not as rigorous as that east.

The CHAIRMAN. Do those streams up there freeze solid in the winter time?

Mr. LYNCH. Do you mean to the bottom of them?

The CHAIRMAN. Do they continue to flow during the winter?

Mr. LYNCH. Oh, yes, sir.

The CHAIRMAN. Streams that run north?

Mr. LYNCH. Yes.

The CHAIRMAN. So that if they have water power there it might be used during the winter?

Mr. LYNCH. Yes, sir.

The CHAIRMAN. It has been suggested to us that on some of those streams up there the weather was so severe that they were frozen practically solid during the winter.

Mr. LYNCH. I can speak from personal knowledge of the country 350 to 400 miles northwest of Winnipeg. That is not the case there.

The CHAIRMAN. What effect, in your judgment, would it have to remove the tariff on pulp wood and other lumber products coming from Canada?

Mr. LYNCH. I think it would cheapen the pulp in the United States. I am not so sure about the lumber, although it probably would that also.

The CHAIRMAN. Do you cut timber from the crown land?

Mr. LYNCH. Yes, sir.

The CHAIRMAN. What do you have to pay for it, if that is not an unreasonable question?

Mr. LYNCH. The price varies a great deal, according to the location of the timber and its quality, and also the time it was bought. It has increased very materially in price in the last four or five years. The crown lands, meaning the Dominion of Canada lands, were put up at—

The CHAIRMAN. The Province of Ontario land?

Mr. LYNCH. They use entirely different systems of buying. The Province of Ontario and the Dominion use entirely different systems of selling their timber.

The CHAIRMAN. What are the crown lands in Ontario?

Mr. LYNCH. They are owned by the Province of Ontario.

The CHAIRMAN. Where are they?

Mr. LYNCH. Everything outside of the province of Ontario in Alberta, Saskatchewan, Athabaska, and Manitoba is owned by the Dominion government.

The CHAIRMAN. Your timber comes mostly from the Dominion?

Mr. LYNCH. Everything we have is from the Dominion government or from the British Columbian government in the west.

The CHAIRMAN. What sort of system do they adopt about stumpage?

Mr. LYNCH. Anyone wishing to acquire timber on Dominion lands makes an application to the department of the interior to have the land put up at auction. They are put up and sold under sealed bids. The minister of the interior, if he sees fit to order it done, orders the land advertised for two months in the Official Gazette and the local papers, sets a time for opening bids, and bids are submitted sealed, accompanied by marked checks for the full amount of the bids to the department of the interior at Ottawa; and the timber is sold to the highest bidder; that is, for the bonus which goes with the first cost of the timber. After that you pay an annual rental to the Crown each year on each section of land that you hold and pay 50 cents a thousand for the timber when it is cut.

The CHAIRMAN. Let me see if I understand you. They do not sell the land itself?

Mr. LYNCH. The land itself is never sold by the Crown; no, sir.

The CHAIRMAN. They sell only the stumpage?

Mr. LYNCH. They sell only the stumpage.

The CHAIRMAN. When you buy it you pay for it, and if you are the highest bidder, you pay the bonus that you offer for the right to cut?

Mr. LYNCH. Yes, sir.

The CHAIRMAN. Which would be, at present, about how much?

Mr. LYNCH. The last timber that we bought cost us about \$2 a thousand.

The CHAIRMAN. You bid on the basis of so much a thousand?

Mr. LYNCH. No, sir. We bid a lump sum, but the last timber that we bought cost us about \$2 a thousand.

The CHAIRMAN. Then, after that, whether you cut the timber or not you pay an annual rental based on what?

Mr. LYNCH. Acresge.

The CHAIRMAN. Which would run about what?

Mr. LYNCH. It varies; it runs from \$5 to \$20 per section.

The CHAIRMAN. Is that a matter of bidding, or is that a regulation?

Mr. LYNCH. That is a regulation.

The CHAIRMAN. That depends, then, upon the quantity of timber?

Mr. LYNCH. It depends upon the district in which the timber is situated. It is really based on the quantity of timber on the land.

The CHAIRMAN. That would naturally tend to cause the cutting of the timber as soon as possible, wouldn't it? Do you pay the rental after the timber is cut?

Mr. LYNCH. No, sir; as soon as the timber is cut you relinquish it. The terms are considered very reasonable.

The CHAIRMAN. That would involve this question, as to whether the increase in the timber, in your judgment, is worth more than the rental or not.

Mr. LYNCH. I think it is.

The CHAIRMAN. Then, after these two payments, you pay, when the timber is cut, 50 cents a thousand feet?

Mr. LYNCH. Yes, sir.

The CHAIRMAN. How do they estimate pulp wood?

Mr. LYNCH. They estimate it by the cord.

The CHAIRMAN. How many thousand feet, how many feet to a cord do they figure on?

Mr. LYNCH. I don't know. I have never cut any.

The CHAIRMAN. I did not know whether they made their figures on the pulp wood on the thousand feet or on the basis of cords.

Mr. LYNCH. The cord. It is estimated by the cord. That provision is included in all our leases or licenses that we get from the government; we must pay so much per cord for pulp wood and so much per thousand for lath.

The CHAIRMAN. Is there any provision in these permits from the Dominion in reference to the exportation?

Mr. LYNCH. No, sir.

The CHAIRMAN. There is no prohibition?

Mr. LYNCH. Not in anything which I have.

The CHAIRMAN. The Dominion, then, does not follow the same policy in that respect that the Province of Ontario does?

Mr. LYNCH. I did not know that the Province of Ontario did that; the Dominion does not.

The CHAIRMAN. The Province of Ontario forbids the exportation, as we understand it.

Mr. LYNCH. There is no prohibition in the Dominion.

The CHAIRMAN. Are there a great many mills up there now—lumber mills?

Mr. LYNCH. No; not very many. The main supply of lumber comes from the British Columbia region to the west.

The CHAIRMAN. Is there any railroad land up there—land owned by the railroads?

Mr. LYNCH. Covered with timber?

The CHAIRMAN. Yes.

Mr. LYNCH. Nothing that amounts to very much; no, sir.

The CHAIRMAN. Are there any freehold lands covered with timber?

Mr. LYNCH. Not very much; no, sir.

The CHAIRMAN. Practically the whole supply of timber west of Ontario and east of the Pacific coast is owned by the Dominion government, then?

Mr. LYNCH. Yes, sir; the Dominion government in all of its dealings in land puts in a provision that the timber remains the property of the Crown.

The CHAIRMAN. Is there any provision in these permits in regard to settlement upon the land?

Mr. LYNCH. We have to relinquish to settlers, but they have not the right to take off more than 12,000 feet of timber per 160 acres.

The CHAIRMAN. Suppose the settler decides to settle on a piece of land where you have purchased the stumpage, what happens?

Mr. LYNCH. He can settle on it, subject to our right to remove the timber.

The CHAIRMAN. If you do not remove the timber, what good is it to him?

Mr. LYNCH. I don't know.

The CHAIRMAN. I mean can he force you to remove the timber?

Mr. LYNCH. No, sir.

The CHAIRMAN. That is some protection to you, then, in making these purchases?

Mr. LYNCH. Oh, yes.

The CHAIRMAN. If he settles, he can take 12,000 feet from 160 acres?

Mr. LYNCH. Yes, sir.

The CHAIRMAN. Which, of course, would not clear the land, and hence there is no inducement to him to settle on land that is well timbered?

Mr. LYNCH. There is no inducement for him to settle on it.

The CHAIRMAN. Do you have good railroad facilities to the United States?

Mr. LYNCH. I do not think there are as good railroad facilities there as there are in the United States.

The CHAIRMAN. Do you know what the freight rates on logs for lumber from there here are?

Mr. LYNCH. The freight rates will average about the same per mile as they do in this country. The service is not as good; the roads are not as well equipped.

The CHAIRMAN. You do not happen to remember the rate from any of your mills to any point in the United States, do you?

Mr. LYNCH. We have never shipped anything. There has been no occasion for us to look it up.

The CHAIRMAN. Where do you ship your lumber to?

Mr. LYNCH. The prairies of Manitoba, Alberta, and Saskatchewan.

The CHAIRMAN. You are furnishing lumber for building up that immense new territory there?

Mr. LYNCH. Yes, sir.

The CHAIRMAN. Do you have anything else occur to you, Mr. Lynch, that would be of value to us?

Mr. LYNCH. Not that I know of, Mr. Mann.

The CHAIRMAN. Is there any way that we can find out and get a pretty definite idea of the quantity of available spruce timber up there?

Mr. LYNCH. Are you going to Winnipeg?

The CHAIRMAN. I did not expect to at this time.

Mr. LYNCH. I think that Mr. Crowe, the crown timber agent at Winnipeg, could give you a better idea of the amount of timber that there is in that district than anybody else.

The CHAIRMAN. What is his address?

Mr. LYNCH. Dominion land department, at Winnipeg.

The CHAIRMAN. Do you remember his first name?

Mr. LYNCH. I do not.

The CHAIRMAN. He has charge of the Dominion lands?

Mr. LYNCH. He has charge of the Dominion lands in the territory that I have referred to.

The CHAIRMAN. Who controls the land farther west?

Mr. LYNCH. The land in British Columbia is controlled, part of it, by the Dominion government, and part of it by the British Columbia government.

The CHAIRMAN. Is lumber any cheaper over there—you do not have to answer this question—than it is over here?

Mr. LYNCH. Yes; I think it is.

The CHAIRMAN. Do you know what the average price is over there now?

Mr. LYNCH. At the mills?

The CHAIRMAN. Yes.

Mr. LYNCH. In the mountain districts in British Columbia I think it will run about \$15.50 per thousand at the mill.

The CHAIRMAN. For what kind of lumber?

Mr. LYNCH. That takes in all of the kinds that are produced in that country—cedar, pine, fir, spruce, and larch.

The CHAIRMAN. Do you have much pine up there?

Mr. LYNCH. There is quite a good deal of pine.

The CHAIRMAN. What pine is it?

Mr. LYNCH. Yellow pine. Very little white pine.

The CHAIRMAN. That is, Norway pine, you mean?

Mr. LYNCH. No; it is a little better grade than Norway pine; not quite as good as white pine.

The CHAIRMAN. How large does that grow to be?

Mr. LYNCH. Immense; it is big pine.

The CHAIRMAN. Do you have any cottonwood up there?

Mr. LYNCH. Not very much. Some along the streams is all.

The CHAIRMAN. No hemlock?

Mr. LYNCH. Some hemlock; yes, sir.

The CHAIRMAN. Are there any hemlock forests there?

Mr. LYNCH. Yes; that is, in British Columbia. I do not think there is any hemlock in the spruce country.

The CHAIRMAN. I mean in the eastern portion.

Mr. LYNCH. Not that I know of in the eastern portion.

The CHAIRMAN. Were you speaking of yellow pine in British Columbia?

Mr. LYNCH. Yes, sir.

The CHAIRMAN. What pine do you have north here?

Mr. LYNCH. White pine.

The CHAIRMAN. Is there much good white pine up there?

Mr. LYNCH. I think there is quite a good deal of pretty fair white pine.

The CHAIRMAN. Much Norway pine?

Mr. LYNCH. I don't think there is very much.

The CHAIRMAN. Is there much balsam there?

Mr. LYNCH. Yes; there is a good deal of balsam.

The CHAIRMAN. Does it grow large?

Mr. LYNCH. Not very.

The CHAIRMAN. Any hard wood?

Mr. LYNCH. No, sir.

The CHAIRMAN. No maple?

Mr. LYNCH. Very little.

The CHAIRMAN. Are you familiar with the wages paid in the United States?

Mr. LYNCH. Yes, sir.

The CHAIRMAN. In the lumber camps?

Mr. LYNCH. In the northern parts; yes, sir.

The CHAIRMAN. How do they run?

Mr. LYNCH. For the past four years they have run from \$30 a month up to \$60 a month and board.

The CHAIRMAN. How do they compare with the wages paid in lumbering in Canada?

Mr. LYNCH. They are a little lower than are paid in Canada.

The CHAIRMAN. You have to pay a little more up in that country where you are operating?

Mr. LYNCH. We pay a trifle higher than they do here; yes, sir.

The CHAIRMAN. That has been the wages in the past?

Mr. LYNCH. That has been the wages in the past.

The CHAIRMAN. What are the wages going to be next winter?

Mr. LYNCH. I think on this side of the line they will be 20 per cent lower than that; on the other side about the same as the American wages have been.

The CHAIRMAN. Is there a shortage of help there?

Mr. LYNCH. No; there has not been a shortage of help this year. Prior to this year labor has been very scarce.

The CHAIRMAN. What kind of people do you have up there in the main in the lumber camps?

Mr. LYNCH. We employ mostly Americans.

The CHAIRMAN. Are the Americans the ones who do most of the lumbering business up there?

Mr. LYNCH. I think probably half of the lumbering that is done in western Canada is done under American management; fully one-half of the skilled labor that is employed is American labor.

The CHAIRMAN. How about the ordinary labor?

Mr. LYNCH. The smaller percentage, probably not over one-quarter of the ordinary labor, is American labor.

The CHAIRMAN. What is the balance?

Mr. LYNCH. English, Scotch, Canadian, Scandinavian.

The CHAIRMAN. How do you get that labor—by advertising in the United States or in Canada?

Mr. LYNCH. No, sir; there are contract-labor laws. It simply comes and we hire it.

The CHAIRMAN. The contract-labor laws would not prevent you advertising in Canada, I suppose, for labor?

Mr. LYNCH. No, I don't suppose they would.

The CHAIRMAN. Do you get it through agencies?

Mr. LYNCH. No, sir; we have taken largely American managers over for our mills and in many cases their men have followed.

The CHAIRMAN. How do the wages compare in the mills themselves with the wages paid in the mills of the United States?

Mr. LYNCH. They are higher.

The CHAIRMAN. Higher in Canada?

Mr. LYNCH. Yes, sir.

The CHAIRMAN. That is for skilled labor?

Mr. LYNCH. Yes, sir; skilled labor and common labor are both higher in the mills there than here.

The CHAIRMAN. You say that you think lumber is a little cheaper there than it is here, and the labor used in producing it is a little higher, too?

Mr. LYNCH. Yes, sir.

The CHAIRMAN. Are the profits smaller or the difference caused by the difference in the cost of the stumpage?

Mr. LYNCH. The profits are smaller. The stumpage is also cheaper. It costs a good deal more to operate a mill in Canada than it does here. In addition to the higher wages that we have to pay, supplies of all kinds are higher and machinery is higher. It costs more to build a mill. The fixed charges are higher.

The CHAIRMAN. Do you think that will continue to be the case after that country west settles up?

Mr. LYNCH. Well, I think that labor and supplies will always be slightly higher than they are here.

STATEMENT OF THEODORE M. KNAPPEN, OF MINNEAPOLIS.

(Sworn and examined by the chairman.)

The CHAIRMAN. Will you give your name in full?

Mr. KNAPPEN. Theodore M. Knappen.

The CHAIRMAN. Your residence?

Mr. KNAPPEN. Minneapolis.

The CHAIRMAN. What is your business?

Mr. KNAPPEN. In private business I am interested in lands. I am interested in testifying here in connection with reciprocity with Canada on account of my connection with a league interested in the removal of duties on forest products.

The CHAIRMAN. What interest have you in lands?

Mr. KNAPPEN. I own some wheat lands, agricultural lands, in Canada. I do not own any timber land.

The CHAIRMAN. You are not connected with any manufacturing plant that uses timber?

Mr. KNAPPEN. No; my interest in this question is largely that of a citizen. I have no selfish interest. We have an organization we are forming here called the National Forest Conservation League.

The CHAIRMAN. Are you employed by that organization.

Mr. KNAPPEN. I am secretary of that organization.

The CHAIRMAN. Can you give us information in regard to the forest resources of Canada?

Mr. KNAPPEN. I can give you some information. Not as a practical lumberman, of course, but as one who has devoted a good deal of attention to the subject in a general way for a number of years.

The CHAIRMAN. That is information which you have collected?

Mr. KNAPPEN. Yes.

The CHAIRMAN. What are your sources of information?

Mr. KNAPPEN. I have traveled a great deal in Canada and seen quite a little from personal observation. I have a wide acquaintance among Canadians, Canadian lumbermen, and in that way in the course of several years have collected a good deal of information.

The CHAIRMAN. Have you been up in the country north of Lake Superior?

Mr. KNAPPEN. Yes, sir; I have.

The CHAIRMAN. How far up?

Mr. KNAPPEN. I have made the trip across several times on the Canadian Pacific Railway from Port Arthur to Winnipeg, and I have been through the Rainy River country on the boundary several times, and also been up in the country which Mr. Lynch has testified about, northwest of Winnipeg, as well as in British Columbia.

The CHAIRMAN. Did you go up there investigating forest matters?

Mr. KNAPPEN. No; I did not go for the purpose of investigating forestry matters, but I have been interested in forestry matters for a great many years. I never had occasion to go into any new country that I did not, as a matter of interest, pick up all the information I could on such matters. I was for many years a newspaper man, and one of the things I specialized on was forestry and forest products and timber. I made some trips in Canada for that special purpose.

The CHAIRMAN. Have you published any articles on the subject?

Mr. KNAPPEN. I have. Not recently.

The CHAIRMAN. We would be very glad to receive any information from you which you have acquired or collected.

Mr. KNAPPEN. Well, I think that in general the amount of available timber in Western Canada—meaning the region say, between Lake Superior and the Rocky Mountains—is not so large as has been supposed. There is a large forest area, about 400 miles wide, and reaching nominally across the continent if you go far enough north, but very little of it is available for commercial purposes.

The CHAIRMAN. Where does that reach across?

Mr. KNAPPEN. It goes right along the international line, crosses the whole timber region of the Middle States, crosses into Ontario, and when you get to about the western side of the Lake of the Woods, the line dividing the prairie country from the forest country deflects to the northwest and runs up around Lake Winnipeg and Lake Manitoba, and then northwest along the main Saskatchewan River clear across to the mountains of British Columbia, where it strikes the general timber country again, running as far north as the sixtieth parallel.

The CHAIRMAN. What is the timber up there?

Mr. KNAPPEN. In that remoter region it is almost exclusively spruce.

The CHAIRMAN. How large does it grow?

Mr. KNAPPEN. Very little of it is, so far as my knowledge goes, suitable for lumber. There are occasional large trees. Writers and explorers report occasional spruce trees 14 to 18 inches thick almost as far north as the Arctic Circle, but they are very exceptional.

The CHAIRMAN. Are you familiar with the territory north of Lake Superior?

Mr. KNAPPEN. I am not very familiar with it personally. I have spent some time around Port Arthur and I have talked with lumbermen there and at Winnipeg regarding the region north of Lake Superior, and a brother of mine made a canoe trip all through the region between Lake Superior and Hudson Bay a few years ago. Those are the sources of my information as to that particular region. There is a continuous belt of timber from Lake Superior to about the latitude of James Bay, which is the southern extremity of Hudson Bay. North of that the timber growth ceases on that part of the continent. For the most part Hudson Bay is an untimbered region.

The CHAIRMAN. Do you wish to compile and present to the committee the results of the information which you have collected?

Mr. KNAPPEN. Yes; I would like to have some leisure. I did not know the committee was to be here so soon. I have a good deal of undigested data, so to speak, that I would like to prepare, together with the general information, and a statement which may be placed on your record.

The CHAIRMAN. We would be glad to have the information if you will give us the sources of it.

Mr. KNAPPEN. Yes, sir. In giving the information I would give under notes the sources of it.

The CHAIRMAN. If you will do that, we will be very much obliged to you.

Mr. KNAPPEN. Thank you very much. I will be very glad of the opportunity to present it.

ADDITIONAL STATEMENT BY MR. LYNCH.

In making my comparison of values of stumpage on this side and the other, I was comparing the values of stumpage directly north of here and northwest of here with the stumpage in Minnesota when I said it was cheaper on the other side. As you go farther west in the mountain districts of British Columbia and the mountain districts of Idaho and Washington, I think that there is not much difference in the value of the stumpage. If anything, it is higher on the other side than it is on this.

The CHAIRMAN. I understood you to have reference to the territory north and west of Minnesota.

Mr. LYNCH. My comparison was correct with that understanding.

The CHAIRMAN. How do you get the stumpage out in British Columbia; in the same way?

Mr. LYNCH. We get the Dominion stumpage in the same way. The British Columbia stumpage is on an entirely different basis. The stumpage there is staked in a good deal the same way that a man would acquire stumpage in this country, except that it does not require a residence. After it is staked, you get a license from the government running for twenty-one years, allowing you to cut that timber at any time during twenty-one years from the time of staking. You, in addition to that, pay a rental of from \$115 per section to \$140 per section per year; in addition to paying a royalty to the British Columbian government on all the timber which you cut. That royalty is not fixed. It can be raised at any time, and they are now talking of raising the royalty.

The CHAIRMAN. What is it at present?

Mr. LYNCH. Fifty cents and 60 cents, according to the district it is in.

The CHAIRMAN. That is 50 cents a thousand feet?

Mr. LYNCH. Yes, sir.

The CHAIRMAN. Do you pay anything when you get the first license?

Mr. LYNCH. We bought timber that was staked many years ago by Canadian cruisers. They go out and stake away ahead of the railroads and away ahead of everything.

The CHAIRMAN. When you say staked, you mean what we call surveyed, I suppose?

Mr. LYNCH. Yes, sir; while it cost them but comparatively little, it cost us pretty heavily.

The CHAIRMAN. How do you mean cost you pretty heavily?

Mr. LYNCH. We had to buy them out.

The CHAIRMAN. You bought out somebody else who had a license?

Mr. LYNCH. Yes, sir.

The CHAIRMAN. Does the government itself—

Mr. LYNCH. The government itself gets but little out of that originally.

The CHAIRMAN. What system do they have? Do they have a charge made at the time the original license is granted?

Mr. LYNCH. They have a license system with this annual rental of \$115 to \$140 per section, and they reserve the right at any time to raise the royalty to whatever the traffic will bear.

The CHAIRMAN. I can not see what object there is on either side in entering into such an arrangement as that.

Mr. LYNCH. I have not found it of any object on our side yet to enter into the arrangement.

The CHAIRMAN. Have you cut lumber up there?

Mr. LYNCH. Yes, sir.

The CHAIRMAN. Do you have a mill up there?

Mr. LYNCH. Yes, sir; two of them.

The CHAIRMAN. In British Columbia?

Mr. LYNCH. Yes, sir.

The CHAIRMAN. Do they have any pulp wood up there?

Mr. LYNCH. Not in the country that I am familiar with. It is big timber, all of it.

The CHAIRMAN. Now, let us see, when you get that permit for twenty-one years, the annual rental is fixed at the time the license is granted for the twenty-one years?

Mr. LYNCH. There is a difference of opinion. We claim it is, and the government claims it is not.

The CHAIRMAN. That is, the government claims it may raise the annual rental when it pleases?

Mr. LYNCH. Yes, sir.

The CHAIRMAN. Do you pay rental on the ground after the timber is cut off?

Mr. LYNCH. No, sir.

The CHAIRMAN. That is relinquished to the government?

Mr. LYNCH. Yes, sir.

The CHAIRMAN. What does it do with the land, anything?

Mr. LYNCH. Well, it is presumed that it will reforest it. That is said to be their intentions.

The CHAIRMAN. As to that stumpage, you have no fixed period in reference to that at all?

Mr. LYNCH. No, sir.

The CHAIRMAN. It there any provision for renewal of that license?

Mr. LYNCH. Not now; no, sir.

On October 15, 1908, the committee visited and examined the mill of the Watab Pulp and Paper Company, at Sartell, Minn., near St. Cloud.

SARTELL, MINN., *October 15, 1908—9 a. m.*

STATEMENT OF CHARLES G. OBERLEY, OF ST. CLOUD, MINN.

(Sworn and examined by the chairman.)

The CHAIRMAN. Will you give the stenographer your full name?

Mr. OBERLEY. Charles G. Oberley.

The CHAIRMAN. You are general superintendent of this plant?

Mr. OBERLEY. Vice-president and superintendent of the Watab Pulp and Paper Company.

The CHAIRMAN. Located where?

Mr. OBERLEY. Sartell, Minn.

The CHAIRMAN. How far is this north of St. Cloud?

Mr. OBERLEY. Approximately 5 miles.

The CHAIRMAN. Your power is mainly water power?

Mr. OBERLEY. Water power; yes, sir.

The CHAIRMAN. From the Mississippi River here?

Mr. OBERLEY. Yes, sir.

The CHAIRMAN. About what power do you have now?

Mr. OBERLEY. Do I understand you, what power we have developed or what power we are actually getting now at this time?

The CHAIRMAN. What power you have developed?

Mr. OBERLEY. Approximately 7,000 horsepower.

The CHAIRMAN. Have you been restricted this summer by reason of the low stage of water?

Mr. OBERLEY. Yes, sir.

The CHAIRMAN. Are you at present?

Mr. OBERLEY. Yes, sir.

The CHAIRMAN. What is your capacity, both for pulp and paper?

Mr. OBERLEY. About 36 tons of paper and between 45 and 50 tons of pulp, when we are running full.

The CHAIRMAN. That is of ground wood?

Mr. OBERLEY. Yes, sir.

The CHAIRMAN. You do not manufacture any sulphite?

Mr. OBERLEY. No, sir.

The CHAIRMAN. You make here, I believe, a superior quality of news-print paper?

Mr. OBERLEY. We endeavor to do so; yes, sir.

The CHAIRMAN. What do you call that?

Mr. OBERLEY. No. 1 print paper or No. 1 news.

The CHAIRMAN. If I remember rightly, you get your sulphite at present from one of the Wisconsin mills, where they make a superior quality of sulphite?

Mr. OBERLEY. Yes, sir; the Interlake Pulp and Paper Company. We buy the highest grade, the E grade.

The CHAIRMAN. You aim to make a superior quality of ground wood?

Mr. OBERLEY. Yes, sir.

The CHAIRMAN. What is the difference in your process from the ordinary process?

Mr. OBERLEY. Well, we use a duller stone to grind the wood on and it takes more horsepower. We use a higher pressure and that takes more horsepower.

The CHAIRMAN. That is, you aim, instead—

Mr. OBERLEY. Instead of getting quantity, we get quality.

The CHAIRMAN. You aim, I judge, instead of breaking off the fiber to tear it by a dull stone?

Mr. OBERLEY. Yes; to rub it off.

The CHAIRMAN. So as to have as long a fiber as possible?

Mr. OBERLEY. Yes, sir.

The CHAIRMAN. Do you think your fiber in the ground wood is longer than the fiber in the ordinary ground wood?

Mr. OBERLEY. Yes, sir.

The CHAIRMAN. Do you give any more attention to the matter of the preparation of the wood than they ordinarily do, so far as you know?

Mr. OBERLEY. So far as I know we give it exceptional attention from the time the wood is prepared until it is turned into the ground product.

The CHAIRMAN. Exceptionally good attention in what way?

Mr. OBERLEY. In sorting our wood, in allowing no rotten wood or wood that is of an inferior quality to enter into the manufacture of the pulp.

The CHAIRMAN. Do you lose quite a percentage of your wood in that way?

Mr. OBERLEY. Yes, sir.

The CHAIRMAN. Have you any idea what percentage?

Mr. OBERLEY. I could not say off-hand. Possibly Mr. Mathie could give us an idea of what percentage that is.

The CHAIRMAN. Do you keep any record of it in order to know?

Mr. OBERLEY. No, sir; the record that we keep is the number of cords of wood that go through the mill and the number of pounds of pulp that is produced from that amount of wood.

The CHAIRMAN. The number of cords that go through the mill. Of course, the wood that is thrown out is counted in that cordage?

Mr. OBERLEY. Yes, sir.

The CHAIRMAN. So that it does not give a record of the amount that is rejected?

Mr. OBERLEY. No, sir; it does not.

The CHAIRMAN. Where do you get your wood from?

Mr. OBERLEY. Principally on the Minnesota and International Railway. Along the line of the Minnesota and International Railway.

The CHAIRMAN. Have you got a large stock on hand?

Mr. OBERLEY. We have at the present time in the neighborhood of eight or ten thousand cords.

The CHAIRMAN. How long would that last you, ordinarily?

Mr. OBERLEY. That will last us about eight or nine months.

The CHAIRMAN. How do you buy your wood?

Mr. OBERLEY. We buy from the homesteaders a good deal.

The CHAIRMAN. Directly or through merchants?

Mr. OBERLEY. In some cases we have bought through merchants, but in most cases we have a man that we pay a salary to to buy this wood from the homesteaders or contractors.

The CHAIRMAN. Does he travel up through where the homesteaders are?

Mr. OBERLEY. He lives up there.

The CHAIRMAN. Would he be able to buy a considerable quantity of wood in any restricted locality where he lives?

Mr. OBERLEY. I do not believe I understand that question.

The CHAIRMAN. Does he buy simply at home, or does he travel in buying?

Mr. OBERLEY. He travels up and down and buys at all the stations on the M. and I.

The CHAIRMAN. Do you have any idea of what percentage he buys from settlers and what percentage he buys from contractors?

Mr. OBERLEY. I would imagine that he buys about from 40 to 50 per cent from the homesteaders and possibly more.

The CHAIRMAN. What price have you been paying lately for pulp wood, during the last year?

Mr. OBERLEY. It has cost us in the neighborhood of \$9 in the yard here.

The CHAIRMAN. That is, piled up or delivered on the cars?

Mr. OBERLEY. Delivered on board the cars, about \$9. It costs about 25 cents a cord to pile it up.

The CHAIRMAN. What would that be at the station where it is delivered to you?

Mr. OBERLEY. That would be determined by the freight rate. They take a different distance tariff. It would depend on what station it came from.

The CHAIRMAN. That is what I want to find out.

Mr. OBERLEY. We have paid as high as \$6.25.

The CHAIRMAN. As low as how much?

Mr. OBERLEY. I do not believe that we got anything better than \$6 last year.

The CHAIRMAN. That is not a very wide variation?

Mr. OBERLEY. No, it is not; but where a man had an exceptionally fine lot of wood, and we saw where we could get more out of it than we could out of a lot of wood that was not quite as good, we felt as though it stood us in hand to pay that extra quarter.

The CHAIRMAN. How long has this mill been established?

Mr. OBERLEY. We have been running a little over a year and a half. We started to build this mill three years ago.

The CHAIRMAN. When did you first start on your water-power proposition?

Mr. OBERLEY. At that time.

The CHAIRMAN. How long did it take to construct that water power?

Mr. OBERLEY. I can not just remember how long.

The CHAIRMAN. Did you have any trouble about your dam?

Mr. OBERLEY. A great deal.

The CHAIRMAN. What percentage of the water in the river do you think you use?

Mr. OBERLEY. There is a good share of the time that we use the most of it. Of course, not in extreme floods.

The CHAIRMAN. Do you have to let a lot of it go over the dam for the benefit of the log drivers?

Mr. OBERLEY. A good share of it.

The CHAIRMAN. Have you any idea what proportion?

Mr. OBERLEY. No; I have no way of determining what proportion goes through that sluice.

The CHAIRMAN. How many grinding machines have you?

Mr. OBERLEY. Nine.

The CHAIRMAN. Three pockets to a machine?

Mr. OBERLEY. Yes, sir.

The CHAIRMAN. Is there room for any more in your mill?

Mr. OBERLEY. Yes, sir; room for nine more.

The CHAIRMAN. How many paper machines have you?

Mr. OBERLEY. One.

The CHAIRMAN. Is there room for one more?

Mr. OBERLEY. Room for one more of the same size.

The CHAIRMAN. What is the size of your machine?

Mr. OBERLEY. 154-inch machine. We trim 141 inches of paper.

The CHAIRMAN. What is the revolution?

Mr. OBERLEY. We are running about 500 feet on an average.

The CHAIRMAN. Your men work twelve hours a day, I suppose?

Mr. OBERLEY. Eleven and thirteen.

The CHAIRMAN. I mean the average is twelve hours.

Mr. OBERLEY. Yes, sir.

The CHAIRMAN. Eleven one week and thirteen the next?

Mr. OBERLEY. Yes, sir.

The CHAIRMAN. What do you pay your men?

Mr. OBERLEY. I can give you the rate of wages by our time book. I can not recall them all.

The CHAIRMAN. I do not want them all. What do you pay your machine tenders?

Mr. OBERLEY. Four dollars a day.

The CHAIRMAN. Back tender?

Mr. OBERLEY. About \$3 a day.

The CHAIRMAN. What do you pay your fifth man?

Mr. OBERLEY. We pay them by the hour; I can not exactly recall that.

The CHAIRMAN. He just told me 12½ cents an hour, 15 years old. You are all young men here?

Mr. OBERLEY. Yes, sir.

The CHAIRMAN. The boys in there look as though they were kids.

Mr. OBERLEY. They are a very likely lot of kids.

The CHAIRMAN. Do you pay the usual rate of wages out in the western country?

Mr. OBERLEY. We pay a little more, I think. We have endeavored to get the best help we could, and we have been willing to pay them.

The CHAIRMAN. Your machinery is up to date in every respect, I judge, from the looks of it?

Mr. OBERLEY. We consider it so; yes, sir.

The CHAIRMAN. Your plant is operated, I judge, entirely by water power, except the boilers for the heating?

Mr. OBERLEY. And drying of the paper.

The CHAIRMAN. Heating the plant and the driers?

Mr. OBERLEY. Yes, sir.

The CHAIRMAN. Your paper machine is electrically operated?

Mr. OBERLEY. It is driven electrically.

The CHAIRMAN. And the electricity is obtained from the water power?

Mr. OBERLEY. Yes, sir.

The CHAIRMAN. All of your beaters are operated from the water power?

Mr. OBERLEY. Yes, sir.

The CHAIRMAN. What fall have you here?

Mr. OBERLEY. Eighteen feet.

The CHAIRMAN. You have had cut off for me a number of disks?

Mr. OBERLEY. Yes, sir.

The CHAIRMAN. They have been taken from the wood or sticks going through the mill?

Mr. OBERLEY. Yes, sir.

The CHAIRMAN. So far as you know they fairly represent the character of the wood that you use?

Mr. OBERLEY. Yes, sir.

The CHAIRMAN. That is mostly black spruce wood that you use, isn't it?

Mr. OBERLEY. A good share of it. A little white spruce mixed with it.

The CHAIRMAN. How much stock have you on hand now in the way of ground wood?

Mr. OBERLEY. The last I remember we had about 1,400 tons.

The CHAIRMAN. Are you storing any now?

Mr. OBERLEY. No, sir; we have not been for quite a few days. We will have to shut down some of the grinders soon, because we are drawing the head down. We are not making any more at the present time than we are using on the one paper machine. The pulp that we have stored we made the bulk of it when we had good water.

The CHAIRMAN. Do you sell your paper for a higher price than the ordinary news-print paper?

Mr. OBERLEY. I am not exactly familiar with the prices the other manufacturers are getting for their product.

The CHAIRMAN. Have you any objection to stating the price that you are getting for your product?

Mr. OBERLEY. No, sir. We are getting about \$2.25 to \$2.45 f. o. b. the mill for it. That would be the average price.

The CHAIRMAN. In selling it do you sell it f. o. b. the mill?

Mr. OBERLEY. Yes, sir; in all cases.

The CHAIRMAN. You do not sell it delivered at the press rooms?

Mr. OBERLEY. No, sir.

The CHAIRMAN. Or at the station?

Mr. OBERLEY. No, sir. We have adopted the plan of selling it f. o. b. the mill for the reason in many instances the paper is damaged in transit, and it is kind of a hard matter for us to take care of it at the other end of the route.

The CHAIRMAN. Equally hard for the purchaser, isn't it?

Mr. OBERLEY. I would imagine that as he is right on the ground it would be easier for him to handle it than it would be for us to handle it, being so far away.

The CHAIRMAN. You supply, I believe, the Chicago Evening Post?

Mr. OBERLEY. Yes, sir.

The CHAIRMAN. Which shows for itself that it is printed on a superior quality of paper.

Mr. OBERLEY. Thank you.

The CHAIRMAN. How long have you been in the paper manufacturing business?

Mr. OBERLEY. Twenty-seven years.

The CHAIRMAN. Are you financially interested in this plant?

Mr. OBERLEY. Yes, sir.

The CHAIRMAN. One of the originators of it and promotors?

Mr. OBERLEY. Yes, sir.

The CHAIRMAN. I suppose when you were figuring upon the plant you figured upon the future supply of pulp wood?

Mr. OBERLEY. Yes, sir.

The CHAIRMAN. What are your views as to that?

Mr. OBERLEY. Well, we would not have built such a substantial mill as we did if we did not see a good many years' supply ahead of us.

The CHAIRMAN. Is that belief based upon hope or upon information?

Mr. OBERLEY. It was based a good deal on observation. I have been all up through this country, all along this line.

The CHAIRMAN. Where did you commence in the paper manufacturing business?

Mr. OBERLEY. Neenah, Wis.

The CHAIRMAN. What plant were you connected with there?

Mr. OBERLEY. The Patten Paper Company.

The CHAIRMAN. Did they make news-print paper at that time?

Mr. OBERLEY. Yes, sir.

The CHAIRMAN. Do they make it now?

Mr. OBERLEY. They have sold that mill, but they have two others that I used to work in.

The CHAIRMAN. Who owns that mill now?

Mr. OBERLEY. The Kimberly-Clarke Company. They have remodeled it and taken the old machines out and made a book mill of it.

The CHAIRMAN. Do you know why?

Mr. OBERLEY. I do not.

The CHAIRMAN. When that mill was located there, you made news-print paper?

Mr. OBERLEY. Yes, sir; out of rags.

The CHAIRMAN. And afterwards out of what?

Mr. OBERLEY. Well, they never used any wood while I was there. Wood came in later than that.

The CHAIRMAN. When did they first commence using wood over there in your experience, ground wood?

Mr. OBERLEY. I can not give you dates. I can not remember that far back.

The CHAIRMAN. Have you been continuously in the paper manufacturing business?

Mr. OBERLEY. Yes, sir.

The CHAIRMAN. Where were you afterwards?

Mr. OBERLEY. Menasha, George A. Whiting's, Menasha.

The CHAIRMAN. Was he using wood over there?

Mr. OBERLEY. He did use a little of it.

The CHAIRMAN. We have been trying to ascertain the history of the introduction of wood in the paper manufacturing business, and not very successfully so far.

Mr. OBERLEY. My recollection was that in 1878, about that time, the Kimberly-Clarke Company began to use wood at the Globe Paper Mill, at Neenah. That was the first wood pulp that I heard of being used. As I remember it, they used one bottle of ground wood to a 600-pound beating engine.

The CHAIRMAN. What would they use now?

Mr. OBERLEY. They use wood entirely.

The CHAIRMAN. Ground wood, you say?

Mr. OBERLEY. Yes, sir.

The CHAIRMAN. They would not use all ground wood now?

Mr. OBERLEY. No, they use about 20 per cent sulphite pulp.

The CHAIRMAN. What percentage of sulphite do you use here, about 20 per cent or less?

Mr. OBERLEY. We use less.

The CHAIRMAN. Because of the superior quality of your ground wood?

Mr. OBERLEY. Yes, sir.

The CHAIRMAN. You have no fear of the spruce forests tributary to your mill being exhausted?

Mr. OBERLEY. No, sir.

The CHAIRMAN. Is there any reproduction of spruce going on?

Mr. OBERLEY. Not to my knowledge.

INTERNATIONAL FALLS, MINN.,

October 18, 1908—9 p. m.

STATEMENT OF ERIC FRANSON, OF INTERNATIONAL FALLS.

(Sworn and examined by the chairman.)

The CHAIRMAN. Give your name.

Mr. FRANSON. Eric Franson.

The CHAIRMAN. You live at International Falls?

Mr. FRANSON. Yes, sir.

The CHAIRMAN. When did you first come to this part of the country?

Mr. FRANSON. I came to this part of the country in February, 1894.

The CHAIRMAN. Have you been and are you familiar with the forest conditions of this portion of the country?

Mr. FRANSON. I have been around a good deal; yes, sir, in different parts of the country.

The CHAIRMAN. Do you consider yourself an experienced woodsman?

Mr. FRANSON. Yes, sir; I consider myself to know a good deal about the woods.

The CHAIRMAN. Are you able to estimate the quantity of different kinds of standing timber?

Mr. FRANSON. Yes, I have done that part of the time.

The CHAIRMAN. You have been around with the committee for the last three days through the forests?

Mr. FRANSON. Yes, sir.

The CHAIRMAN. You showed the committee up on Rat Root River, and adjacent to that, some black spruce forests?

Mr. FRANSON. Yes, sir.

The CHAIRMAN. Was that a typical spruce forest of thick woods?

Mr. FRANSON. Yes; that was a fair sample of the black spruce that we have. In some places you will find it a good deal larger, but that was a fair sample of black spruce.

The CHAIRMAN. What would you say was the average diameter of the black spruce that we saw up near the Rat Root?

Mr. FRANSON. Well, the average diameter of the pulp we looked at there I should judge to be about 6 inches.

The CHAIRMAN. What would you estimate was probably the average height of the good pulp spruce?

Mr. FRANSON. The average height of the good spruce will run between 60 and 75 to 80 feet.

The CHAIRMAN. I mean that black spruce that we looked at on the Rat Root; would that average as high as 60 feet, do you think?

Mr. FRANSON. It depends how far out toward the open muskeg we go.

The CHAIRMAN. It would vary from the highest land to the very swampy land?

Mr. FRANSON. Yes; of course we could not call the very smallest, where it runs down very low, commercial pulp spruce. The average pulp spruce would run in the neighborhood of 55 or 60 feet, I should think.

The CHAIRMAN. In that spruce that we looked at where it was probably the thickest have you an idea as to the number of trees to the acre?

Mr. FRANSON. No, I have not.

The CHAIRMAN. You are not in the habit of computing it in that way?

Mr. FRANSON. Yes.

The CHAIRMAN. What would be your estimate of the amount of spruce in cords per acre in that character of timber?

Mr. FRANSON. That character of timber would run from 30 to 45 cords to an acre.

The CHAIRMAN. How do you reach that estimate, by actual cutting or by figuring out the number of trees and their size, etc.?

Mr. FRANSON. It can be reached in two ways. By actual cutting and comparing different classes, where cord wood is being cut, and then figuring up the trees and the size of the trees.

The CHAIRMAN. That estimate of yours of 35 to 40 cords per acre, is it based upon your long experience in such matters?

Mr. FRANSON. Yes, it is. In some places where I have seen the cord wood cut and where it is about the same thickness of trees and about the size.

The CHAIRMAN. Bits of forest like that are only in places?

Mr. FRANSON. It runs along the muskeg.

The CHAIRMAN. Along on the outside of the muskeg.

Mr. FRANSON. Yes; between the high land and the muskeg. The pure black spruce forest.

The CHAIRMAN. What do you call the muskeg?

Mr. FRANSON. I call the muskeg the low land where the water stands a good deal a good part of the year and it is too wet for timber and grass to grow.

The CHAIRMAN. Do any trees grow in the muskeg at all?

Mr. FRANSON. Yes, not the lowest part. We find muskeg which is open and then we find muskeg which is heavily covered with timber. It is according to the height of it.

The CHAIRMAN. What determines whether it is muskeg or not?

Mr. FRANSON. Muskeg would be the open part of it and spruce swamp would be where the timber grows.

The CHAIRMAN. Does tamarack grow farther into the swamp than black spruce?

Mr. FRANSON. It grows together in a good many places, and in some places you will find mostly tamarack and in some places all spruce.

The CHAIRMAN. The black spruce, then, seems to grow in just about as wet ground as tamarack?

Mr. FRANSON. Yes; about the same. You will find the two together a good deal.

The CHAIRMAN. Where this wet ground is, with the black spruce on it, is very apt to grow very thickly, is it?

Mr. FRANSON. Yes, sir.

The CHAIRMAN. And apparently very slowly?

Mr. FRANSON. Yes.

The CHAIRMAN. We noticed quite a number of trees the other day, as I remember, that seemed to have grown about 3 inches in a great many years.

Mr. FRANSON. That is the extreme wet part of the swamp or muskeg. Toward the high land you will find it larger. You will find it a foot thick in some places.

The CHAIRMAN. Have you ever made any estimate as to the proportion of acreage that is covered by this thick black spruce forest?

Mr. FRANSON. No; not exactly.

The CHAIRMAN. As much or more than 10 per cent?

Mr. FRANSON. It is more than 10 per cent in Itasca and Koochi-ching counties.

The CHAIRMAN. How much pure muskeg is there here with nothing growing on it?

Mr. FRANSON. I have not figured up the acreage.

The CHAIRMAN. Is there a considerable quantity?

Mr. FRANSON. No; you might find it in a mile or two in strips, and then it starts in with smaller timber and grows larger toward the high land.

The CHAIRMAN. The swamp spruce is what you call black spruce?

Mr. FRANSON. Yes.

The CHAIRMAN. And high-land spruce you call white spruce, do you?

Mr. FRANSON. Yes.

The CHAIRMAN. Is the high-land spruce that we saw on our walk a fair sample of the way the spruce runs in this locality?

Mr. FRANSON. It was not very large, that that we saw. It is found a good deal larger in other places.

The CHAIRMAN. How large a tree did you measure to-day?

Mr. FRANSON. We measured a tree that was about 3 feet in diameter.

The CHAIRMAN. That is unusually large for this location?

Mr. FRANSON. It is unusual. You do not find that very often. Every now and then you find a tree like that, all the way from 6 inches up to 18 inches is very common.

The CHAIRMAN. And in the neighborhood of 10 or 12 inches is quite common?

Mr. FRANSON. Yes, sir; very common.

The CHAIRMAN. Those larger trees would likely be used as saw logs, wouldn't they?

Mr. FRANSON. They are used for saw logs.

The CHAIRMAN. Instead of for pulp wood, if they get sawmills convenient?

Mr. FRANSON. Yes, they would be used for saw logs.

The CHAIRMAN. Mixed in with this timber around here is there a good deal of white cedar, or arbor vitæ?

Mr. FRANSON. There is a good deal of white cedar mixed in.

The CHAIRMAN. And a good deal of tamarack?

Mr. FRANSON. Yes, white cedar and tamarack and balsam and poplar.

The CHAIRMAN. A large amount of what you call poplar?

Mr. FRANSON. Yes, a large amount of poplar.

The CHAIRMAN. Which seems to be quaking aspen. How large does that grow?

Mr. FRANSON. It grows all the way from 6 inches to 2 feet.

The CHAIRMAN. Is the black spruce the prevalent spruce, the one that is most found up here?

Mr. FRANSON. It seems to be the choicest of the two by the paper men.

The CHAIRMAN. I mean that is the one you find the most of?

Mr. FRANSON. Oh, yes.

The CHAIRMAN. That is a very slow growth of spruce where it grows in the cold soil?

Mr. FRANSON. It is very slow growing; yes.

The CHAIRMAN. Have you any idea about the age of these trees around here? I think we counted the rings on a 10-inch tree here the other day, and there were apparently about 125.

Mr. FRANSON. Yes; I think the age runs from 50 to 125 years.

The CHAIRMAN. Have you any idea about the percentage of spruce around here?

Mr. FRANSON. Do you mean black spruce?

The CHAIRMAN. Black spruce and white spruce combined, or either one.

Mr. FRANSON. It will run one-third or better of spruce.

The CHAIRMAN. When a cruiser goes on land, how does he estimate the quantity of the different kinds of timber on it?

Mr. FRANSON. In saw timber he will size up the trees, how many logs a tree will cut, and how many logs it will take to a thousand.

The CHAIRMAN. He does not size up every tree, does he?

Mr. FRANSON. He will size up the trees and then make an average of the whole.

The CHAIRMAN. He does not actually count the trees?

Mr. FRANSON. He actually counts the trees in large timber. In pine timber and saw timber. To make a good estimate he must count the trees.

The CHAIRMAN. Can he tell just where the 40-acre tract commences, where the line is?

Mr. FRANSON. A cruiser to take a good and true estimate must run out every forty by itself.

The CHAIRMAN. Do they do that, as a matter of fact?

Mr. FRANSON. That is the way they do it. And then go through the forty several times.

The CHAIRMAN. How do they do in estimating pulp wood? Of course, they can not possibly count the trees there?

Mr. FRANSON. The only way would be to step off an acre or more and count the trees on one acre and then average that with the balance of the forty.

The CHAIRMAN. A gentleman over at the hotel stated that in 160 acres they had counted 27,000 poles, that is, telegraph poles, most of which were on about 80 acres. That would be, if equally distributed over 160 acres, I think Mr. Norris figured 170 trees to the acre.

Mr. FRANSON. That was telephone poles.

The CHAIRMAN. Yes. Does the pulp spruce stand as thick as that or thicker?

Mr. FRANSON. It stands a good deal thicker. A telephone pole is generally a cedar pole, and the spruce pulp grows a good deal thicker than cedar does.

The CHAIRMAN. What is the character of the soil here?

Mr. FRANSON. The biggest part of the country is black loam, with clay subsoil on the low land, and on the high land where the Norway pine grows it is sandy and rocky.

The CHAIRMAN. It seems to grow good timothy hay.

Mr. FRANSON. It grows very fine timothy and clover in places.

The CHAIRMAN. Does it grow other farm crops well?

Mr. FRANSON. All the garden stuff seems to do exceedingly well. Even corn has been raised successfully.

The CHAIRMAN. You remember we noticed a good many homestead sites, little clearings with a small house of some sort, most of which seem to be abandoned?

Mr. FRANSON. Yes, sir.

The CHAIRMAN. Is that because, as a rule, those titles have been secured from the Government or because the people have quit before they secured title?

Mr. FRANSON. I think I gave you a statement the time we walked by a few of them that a couple of parties have died and two other parties have sold out.

The CHAIRMAN. After they got their title?

Mr. FRANSON. After they got their title.

The CHAIRMAN. I wondered whether the taking of those homesteads was, as a rule, for the purpose of getting title or whether they really intended to farm there, because in no case did we see in any of these abandoned homesteads where the ground had been turned over.

Mr. FRANSON. In two or three places the ground had been cultivated.

The CHAIRMAN. Who does the land around here that is not taken up generally belong to; does the Government or State own much of it, do you know?

Mr. FRANSON. The high land that belonged to the Government has been taken by the homesteaders, and through the stone and timber act.

The CHAIRMAN. All the high land practically, then, is now owned by private individuals or corporations?

Mr. FRANSON. It is.

The CHAIRMAN. Does the State own very much of the land up here?

Mr. FRANSON. The State owns a large portion of the swamp land.

The CHAIRMAN. Is that outside of the muskeg?

Mr. FRANSON. That is the muskeg.

The CHAIRMAN. Do they own much of the spruce swamps?

Mr. FRANSON. There is spruce on some of it. In some cases the spruce belongs to homesteaders.

The CHAIRMAN. How large a county is Koochiching County?

Mr. FRANSON. Fifty-four miles long and 60 miles wide.

The CHAIRMAN. What county is on the east of it?

Mr. FRANSON. On the east of it is St. Louis County.

The CHAIRMAN. Is that the one that runs clear to Duluth?

Mr. FRANSON. Yes.

The CHAIRMAN. What county is on the south of it?

Mr. FRANSON. It is Itasca County.

The CHAIRMAN. Is Koochiching County very largely the same character of forest all over?

Mr. FRANSON. Yes; it is a good deal. About the same character of land. A good deal of swamp in it and some high land.

The CHAIRMAN. Is Itasca County very much the same?

Mr. FRANSON. A good deal of it.

The CHAIRMAN. Is the western part of St. Louis County much the same; that is, the part that joins Koochiching and Itasca counties, or are you familiar with that over there?

Mr. FRANSON. St. Louis County is higher land than Itasca and Koochiching County.

The CHAIRMAN. The surface up here along the boundary line is largely water, is it not?

Mr. FRANSON. It is.

The CHAIRMAN. Is Koochiching County filled with lakes also away from the Rainy River?

Mr. FRANSON. Not very many.

The CHAIRMAN. It is mostly either swamp or forest?

Mr. FRANSON. Swamp and forest and a few rivers.

The CHAIRMAN. How about Itasca County; are there more lakes in that?

Mr. FRANSON. There are more lakes in Itasca County.

The CHAIRMAN. Is Lake Itasca in Itasca County?

Mr. FRANSON. I think it is.

The CHAIRMAN. Does that include the Leech Lake district?

Mr. FRANSON. Yes.

The CHAIRMAN. Have you an idea as to the average of spruce trees per acre in cords in this country or this locality?

Mr. FRANSON. I haven't a close estimate of it, but in my judgment, I think it will run from 5 to 10 cords, and probably more, probably as high as twenty.

The CHAIRMAN. I think Mr. Backus stated the other day that he thought there was about twice as much poplar in this Rainy River basin as there was spruce. It did not seem to me that would be the case with what we have seen.

Mr. FRANSON. There is a very large amount of poplar, because it grows larger and taller. Take it along the rivers, for instance, along Rat Root now, and in there, that part of the country above where we were, it is very heavy poplar all the way through, and a good deal of the high land is covered with poplar, too.

The CHAIRMAN. When they cut this forest do they cut it clean as they go along, cut everything down?

Mr. FRANSON. They generally take the saw timber and leave the balance of it where they have been cutting now.

The CHAIRMAN. That is where they are cutting logs?

Mr. FRANSON. Where they are cutting saw logs, yes.

The CHAIRMAN. Where they cut telephone poles, do they clean it up?

Mr. FRANSON. They generally take all the cedar. Cedar is generally by itself, and they clean all the cedar off as they go along.

The CHAIRMAN. As a matter of fact, have they cut any pulp wood up here at all yet?

Mr. FRANSON. Not much in this part of the country. There was a small amount cut last winter about 25 miles from here.

The CHAIRMAN. Did you see where they cut it?

Mr. FRANSON. Yes.

The CHAIRMAN. They are likely when they cut pulp wood to cut it clean?

Mr. FRANSON. They cut that portion clean except a few tamaracks.

The CHAIRMAN. Would it be practicable, where they cut this black spruce pulp wood, to leave the small stuff 2 and 3 inches in thickness standing, or would it be all broken down?

Mr. FRANSON. The most of it would be broken down. There will be some small ones, but the most of it will be destroyed in taking the big ones out where it stands so thick.

The CHAIRMAN. The dam that is located and has been started here, and upon which operations ceased, is to be gone right ahead with now, I believe.

Mr. FRANSON. It is.

The CHAIRMAN. All the financial and other arrangements have been made?

Mr. FRANSON. Yes, as far as I know, all the financial arrangements are made and the company is organized, and in the last few days they have started in to prepare for the men and get ready for the work.

The CHAIRMAN. You have a fall here of about 30 feet, Mr. Doring says.

Mr. FRANSON. Yes; just about.

The CHAIRMAN. With a very large area of water in lakes to draw upon?

Mr. FRANSON. Very large, indeed.

The CHAIRMAN. Are you familiar with the forest on the Canadian side?

Mr. FRANSON. Fairly.

The CHAIRMAN. Is it about the same as it is over on this side?

Mr. FRANSON. It is, in some places. West of here on the Canadian side they have a great deal of spruce pulp, and also farther east there is a very large tract of it. Straight north of here it is rocky, and there is more pine and high-land spruce than anything else.

The CHAIRMAN. Is it rocky right directly east of here too, more or less?

Mr. FRANSON. It is rocky, yes; but it is a portion of the country which is lower land, and there is more black spruce.

The CHAIRMAN. What kind of forest is there on the north shore of Rainy Lake where it runs off to the north?

Mr. FRANSON. Close to the lake is mostly pine.

The CHAIRMAN. Is that higher ground?

Mr. FRANSON. Close to the lake? Yes. Back of the lake for a mile or a mile and a half or two miles you find very nice spruce pulp.

The CHAIRMAN. Is this lake basin here largely stone?

Mr. FRANSON. It is mostly in stone, except a few places similar to the Rat Root country that we were in the other day.

The CHAIRMAN. Does that rise back into stone farther out, or does it simply run into muskeg?

Mr. FRANSON. That runs into muskeg.

The CHAIRMAN. Someone has stated since we have been here that a large share of the forest over on the Canadian side west of here, I think, had been burned over and was of very little value.

Mr. FRANSON. There have been some fires; but to my knowledge I do not know that any great portion of the pulp timber has been burned. Some of it probably has.

The CHAIRMAN. You have had no serious fires here this summer?

Mr. FRANSON. Not on this side.

The CHAIRMAN. Were there some serious fires on the Canadian side?

Mr. FRANSON. They had some fires east of here.

The CHAIRMAN. Have there been any serious forest fires here since you have been here; since 1894?

Mr. FRANSON. Not on the American side. There was a serious forest fire on the Canadian side which burned about 40 miles in length.

The CHAIRMAN. Was that this same low land or was it higher land?

Mr. FRANSON. That was higher land.

The CHAIRMAN. It would take, I suppose, a very exceptional drought to make this low land over here dry enough to burn badly, wouldn't it?

Mr. FRANSON. It must be a very dry season to burn the muskeg. Similar to the one that we had this summer up here.

The CHAIRMAN. Where we have been through the last few days, while it has rained, it would not seem to me that it would burn very fast.

Mr. FRANSON. There was a time about a month here when it was very dry.

The CHAIRMAN. Would the moss get dry enough to burn rapidly?

Mr. FRANSON. Yes; it was this summer for about a month. There was, in fact, one fire started, but by prompt action of the people around there they got it out.

The CHAIRMAN. Does the State make any effort or provide any men to fight forest fires?

Mr. FRANSON. The only effort they have made so far is that the township board and the village president are forest commissioners and they have the power to call the people in case of a forest fire.

The CHAIRMAN. How long have you had a railroad up here?

Mr. FRANSON. We have had a railroad in here now for a year.

The CHAIRMAN. Has there been much more danger of forest fires with the railroad here?

Mr. FRANSON. There would be more danger of forest fires. The M. and I. run a speeder during the dry season quite often after a train has passed, and if a fire was discovered it was reported and very prompt action was taken to put it out.

The CHAIRMAN. What is a speeder?

Mr. FRANSON. A light car. They run with gasoline. They are big enough for two or four men. They have a fine one on the Minnesota and International big enough for six men and a small one big enough for three men. They are very handy cars to go through the country with.

The CHAIRMAN. How will they get this pulp wood, when it is cut, to this point?

Mr. FRANSON. Anything that is close to the railroad will be hauled on cars, and anything that is close to the rivers, more handy to the lake, will be taken through the lakes.

The CHAIRMAN. Do they haul pulp wood in the winter on teams to any extent for any distance?

Mr. FRANSON. That is the proper time to haul it, and it can be hauled a good many miles.

The CHAIRMAN. On an iced road?

Mr. FRANSON. Yes; especially where it stands thick, so that they can afford to put in a good road.

The CHAIRMAN. Do you think it would pay up here to endeavor to keep any of those spruce forests where the trees are very small and very thick standing until they grow considerably larger, which might take a good many years?

Mr. FRANSON. I do not think it would pay to leave the small trees. In my judgment it would be better to cut it clean and plant the ground with seed.

The CHAIRMAN. If the State could handle it, wouldn't it be a wise thing to try to save the trees that are there until they should grow large enough to be of some use?

Mr. FRANSON. Yes; it would, if the small timber was not destroyed when it was cut down; but in a heavy spruce swamp, after you take the timber out, it will not leave very much.

The CHAIRMAN. We saw some that was pretty thick where I should not think it would average 4 inches, and lots of it was only 2 and 3 inches.

Mr. FRANSON. Close to the open part of the swamp, yes, there is some that runs from 2 inches up to 5 inches probably.

The CHAIRMAN. That 2-inch stuff is not good for anything?

Mr. FRANSON. Not that I know of. By leaving it standing there it should in time be the same size as the balance of it, I should think; and probably the drainage of the swamps would hasten the growth of it.

The CHAIRMAN. Can these swamps around here be drained without affecting the lakes?

Mr. FRANSON. All the swamps in Koochiching County can be drained, every one of them.

The CHAIRMAN. Drain them into the lake?

Mr. FRANSON. Drain them into the river below.

The CHAIRMAN. Into the Rainy River?

Mr. FRANSON. Into the Little Fork and Big Fork and Rainy River, and the State is putting in a number of ditches now.

The CHAIRMAN. How far down from here do the Big Fork and Little Fork come into the river?

Mr. FRANSON. It is 12 miles to Little Fork and about 16 or 17 miles to Big Fork.

The CHAIRMAN. Is the timber very much the same up along those rivers as it is here?

Mr. FRANSON. It is high-land spruce close to the river banks and farther back it is very thick swamp spruce.

The CHAIRMAN. Is most of that soil, while it is swampy, considerably above level of the water in the river?

Mr. FRANSON. It is as high as 20 or 25 feet above the water in the river, but it seems to be held in there like in a basin. The land around the river is higher for a quarter of a mile or half a mile, and when a ditch is run through there and into the swamps it can be drained very nicely.

The CHAIRMAN. The State is now engaged in doing that?

Mr. FRANSON. They are now doing that.

The CHAIRMAN. Do you think that will benefit the spruce or injure it?

Mr. FRANSON. In my estimation it will probably hasten the growth of the small spruce equal to what we looked at the other day. The larger spruce is close to the high land and gradually growing smaller as you get down to the low land. That makes me believe that it should grow larger after the land is drained out.

The CHAIRMAN. Then you have up here a little white pine?

Mr. FRANSON. Yes.

The CHAIRMAN. Some balsam?

Mr. FRANSON. Yes.

The CHAIRMAN. Some Norway pine?

Mr. FRANSON. Yes.

The CHAIRMAN. A large amount of spruce, both black and white?

Mr. FRANSON. Yes.

The CHAIRMAN. A lot of quaking aspen?

Mr. FRANSON. Poplar we call it here.

The CHAIRMAN. You have no large oak?

Mr. FRANSON. We have some oak along the rivers; on the extreme low land along the rivers.

The CHAIRMAN. Does it grow large?

Mr. FRANSON. We have oak as large as 2 feet on the stump.

The CHAIRMAN. It is red oak, I judge.

Mr. FRANSON. Yes, sir.

The CHAIRMAN. You have a good deal of the paper-leaf birch?

Mr. FRANSON. Yes.

The CHAIRMAN. Do you have any of it that grows very large?

Mr. FRANSON. I have seen birch as large as 18 inches.

The CHAIRMAN. I remember down in the Leech Lake country I saw great quantities of it a foot and 2 feet in diameter.

Mr. FRANSON. We have a great deal of birch here running all the way from 8 inches to a foot.

The CHAIRMAN. What is that used for?

Mr. FRANSON. The largest and straightest part of it is used for flooring, and they use it a good deal in the furniture factories.

The CHAIRMAN. You have no maple, either hard or soft?

Mr. FRANSON. Not to speak of.

The CHAIRMAN. No cherry that grows large?

Mr. FRANSON. No.

The CHAIRMAN. You have a good deal of tamarack?

Mr. FRANSON. Yes; we have a good deal of tamarack.

The CHAIRMAN. And a large amount of what you call cedar?

Mr. FRANSON. Yes; we have cedar that will cut as high as 60 and 70 foot poles here, and as large as 3 feet on the stump.

The CHAIRMAN. Do they have more cedar east of you, or do you have more here than they do there?

Mr. FRANSON. We have two or three nice townships of cedar about 20 miles east and south of here.

The CHAIRMAN. We are going over into St. Louis County. Do you know how their forests over there compare with the forests here?

Mr. FRANSON. I have been in part of the St. Louis country close to the line and up along the lakes along the boundary line and it is a good deal of Norway pine, some white pine and spruce in some places.

The CHAIRMAN. I think the most of the pulp wood that has been cut in the West in recent years in the way of spruce pulp wood has been cut in the western portion of Minnesota where they were cutting cedar poles, probably. That would be very similar to your spruce here, I should judge.

Mr. FRANSON. Yes; you will find some very good spruce on the high land which makes good pulp wood and is too small for saw logs.

The CHAIRMAN. The spruce that they are cutting over there is generally the black spruce, very small and very old, if we can judge by what we have seen in the yards at the mills, both in this State and Wisconsin?

Mr. FRANSON. That must come from the spruce swamps such as we have been looking at.

The CHAIRMAN. I think very much the same. I understand they cut it clean, and they cut the pulp wood out when they cut it for cedar poles, primarily. I think that is all, but I would like to express to you the thanks of the committee for the aid you have rendered us and the great courtesy you have extended to us. Do you know Mr. L. W. Ayer?

Mr. FRANSON. Yes. He is the first white man born in Minnesota.

The CHAIRMAN. He is an experienced cruiser?

Mr. FRANSON. Yes, sir.

The CHAIRMAN. You call a man who goes through the woods estimating the timber a cruiser?

Mr. FRANSON. Yes; and Mr. Ayer has done that very near all his lifetime.

The CHAIRMAN. He has been making estimates for Mr. Backus or the company here now for how long?

Mr. FRANSON. He has done a good deal of estimating through this part of the country, I think, for Mr. Backus and other parties.

The CHAIRMAN. Mr. Backus showed us the other day estimates on all of the land, I think, in the Rainy River basin. Was that mostly done by Mr. Ayer?

Mr. FRANSON. I think a good deal of it was done by Mr. Ayer and one or two helpers that he had. He was the head.

The CHAIRMAN. He is a perfectly competent, experienced cruiser and estimator?

Mr. FRANSON. Yes; he is a very reliable man. As compared with other cruiser's estimates, they claim that he is not very high in his estimates. His estimates are very sure, because he does not fix it any higher than he is sure of.

The CHAIRMAN. You know a hog buyer gets so he can guess the weight of a hog almost absolutely correctly.

Mr. FRANSON. I know.

The CHAIRMAN. Do cruisers get so that they can estimate the forest accurately, or is it largely a guess at best?

Mr. FRANSON. With long experience they come very close. I have had pieces estimated by cruisers and afterwards cut the timber, and on 40 acres and 80 acres and 160 acres they have been within 10,000 or 15,000.

The CHAIRMAN. That is, 10,000 or 15,000 board feet?

Mr. FRANSON. Yes.

The CHAIRMAN. What percentage would that be—10 per cent or 5 per cent?

Mr. FRANSON. That would be 5 per cent—somewhere along there. Probably a good deal less. In some cases, only 2 or 3 per cent.

The CHAIRMAN. Will two cruisers entirely unknown to each other, estimating the same piece, come within 10 or 15 per cent of each other?

Mr. FRANSON. They should do that, on a tract of timber land.

The CHAIRMAN. Are there very many experienced cruisers in the country?

Mr. FRANSON. We have a number of cruisers who have had a good deal of experience.

The CHAIRMAN. Are they busy the most of the time?

Mr. FRANSON. They are busy a good deal of the time; yes.

The CHAIRMAN. Can a man who has not had that experience go into a forest and estimate the quantity of standing timber with any degree of accuracy?

Mr. FRANSON. The way they get their experience a new man generally goes along with an old hand until he gets to be competent.

The CHAIRMAN. There is talk of having the Government take a census of the standing timber, and I have wondered a good many times whether, if it undertook to do that, there would be anybody to take the census.

Mr. FRANSON. There are numbers of cruisers. Of course, the most experienced cruisers are kept by the timber companies estimating

timber when they are buying, and generally they stay with that company for years.

The CHAIRMAN. When a man goes to buy or a company goes to buy a piece of timber, is it the usual custom for them to have somebody cruise it before they purchase?

Mr. FRANSON. Certainly; they send their cruiser out and have it looked over.

The CHAIRMAN. They send an experienced man and rely upon his estimate?

Mr. FRANSON. Yes.

The CHAIRMAN. The head of the concern does not just ride through on a railroad train and determine how much there is there.

Mr. FRANSON. They buy on the cruiser's estimate.

The CHAIRMAN. We are endeavoring, by looking at two or three spots, to settle how much pulp wood there is in the United States. I do not know but we will come as near doing it as they do.

Mr. FRANSON. There is one thing that I would like to ask you to take up with Colonel Andrews, the forest commissioner, probably next summer. It is a little late this fall and all the danger is over. That is, that the State put in a few fire wardens through the country. It would probably save thousands and millions of dollars by giving the man that is on the ground authority to call the people and pay them for it and get the fires out in the beginning. I wrote to Mr. Andrews myself this summer once or twice, and he replied that the officers which I mentioned before were commissioners and that they had authority, but a man that is doing his own work around the city is not the proper man for it.

The COMMISSIONER. Do you know where the United States forest reservation is up here?

Mr. FRANSON. I think the United States has got a park, but I have forgotten what townships they are.

The CHAIRMAN. Could you give an estimate as to the yield in cords of the highland spruce, or does that grow so dense as the black spruce?

Mr. FRANSON. It is very hard.

The CHAIRMAN. The highland spruce is much more scattered?

Mr. FRANSON. It is more scattered and larger.

The CHAIRMAN. Is there very much forest here anywhere that contains no spruce?

Mr. FRANSON. There is more or less spruce on every acre of ground where other timber grows.

The CHAIRMAN. We went through a lot of highland spruce yesterday; what did you estimate that?

Mr. FRANSON. I think I stated yesterday that the place where we stopped would run all the way from 30 to 45.

The CHAIRMAN. That is where we stopped for luncheon?

Mr. FRANSON. Yes.

The CHAIRMAN. Was that white or black spruce?

Mr. FRANSON. That was black spruce.

The CHAIRMAN. In order to get a train for Duluth we have got to go over to Canada?

Mr. FRANSON. That is the only way, unless you take the *Dan Patch* and go to Ranier.

The CHAIRMAN. I noticed in coming from Ranier to this point, International Falls, that close to Ranier we came to rapids where the channel is very narrow and very deep.

Mr. FRANSON. Yes; it is a very dangerous place.

The CHAIRMAN. Is there quite a good deal of navigation on that river?

Mr. FRANSON. There is a great deal; at least 10 or 15 boats every day during the summer.

The CHAIRMAN. How wide is that channel, do you think, where it is deep enough for a boat to go through?

Mr. FRANSON. The main channel is not more than 50 to 75 feet and is deep enough for the large boats to pass.

The CHAIRMAN. On each side of that is shallow water coming over the rocks, but still rocks that you can not see?

Mr. FRANSON. There are rocks that you can not see. It is a rocky reef coming out on each side of the channel. The channel is deep enough for any boat to pass if they are in the right place, but if they should get away 50 feet to one side they might land on the rocks.

The CHAIRMAN. Is there any such thing as coming through there with a boat going at slow speed?

Mr. FRANSON. Not going down. They have to go with very high speed. They must run the engine fast enough to steer the boat. There is no way of running with slow speed down there.

The CHAIRMAN. How should that be fixed, so far as marks are concerned?

Mr. FRANSON. The easiest and best way would be to put a light on each side of the channel.

The CHAIRMAN. What would they put the light on?

Mr. FRANSON. It would be very easy to put the foundation right on the solid rock. Very early in the spring it is out of water.

The CHAIRMAN. I thought you had high water in the spring?

Mr. FRANSON. I mean early—before the water is coming down.

The CHAIRMAN. Do you mean in February or March?

Mr. FRANSON. No; we have low water in the lake in May often, and the highest stage of water is in July and August.

The CHAIRMAN. When does the snow melt here?

Mr. FRANSON. In April and May, but we have four or five lakes above, which the water goes into first, and it takes that time to fill the lakes, and the basin is so large that it takes about two months for the water to get down here.

DULUTH, MINN., *October 20, 1908.—10 a. m.*

STATEMENT OF LOUIS R. MARTIN, OF DULUTH, MINN.

(Sworn and examined by the Chairman.)

The CHAIRMAN. Will you give your full name?

Mr. MARTIN. Louis R. Martin.

The CHAIRMAN. Your residence is here in Duluth?

Mr. MARTIN. Yes, sir.

The CHAIRMAN. We are endeavoring to ascertain as far as possible the present and the available future supply of pulp wood, particularly spruce, that may be used by the pulp-wood mills; and we would like to ascertain as far as practicable the pulp-wood supply, or spruce

wood forests in Minnesota, and also as far as we can get any information across the line in Canada, the purpose of the committee being just at present to endeavor to ascertain whether the spruce forests of this country will supply the demand for pulp wood in the future, and if that does not seem probable, whether there is a supply of wood in Canada that would be available for the use of the pulp and paper mills of this portion of the country, at least, if we could make satisfactory reciprocal arrangements with Canada, if that is necessary. You are engaged in the supplying of pulp wood, are you?

Mr. MARTIN. Yes, sir.

The CHAIRMAN. Do you cut on your own land or purchase or make arrangements with other contractors?

Mr. MARTIN. I operate my own land, and buy from settlers and contractors.

The CHAIRMAN. Do you sell more or less pulp wood to the Wisconsin and Minnesota mills?

Mr. MARTIN. My pulp wood this last few years has all gone to Wisconsin.

The CHAIRMAN. Which one of the companies there?

Mr. MARTIN. Grand Rapids, the Northern Paper Company.

The CHAIRMAN. They supply three or four of the mills in the Wisconsin River Valley?

Mr. MARTIN. They have their own mills there. It is all one outfit.

The CHAIRMAN. It is all one outfit in buying pulp wood?

Mr. MARTIN. Yes, sir; and they supply other mills there.

The CHAIRMAN. Three large mills there, I think, they supply?

Mr. MARTIN. Yes, sir.

The CHAIRMAN. Do they make an arrangement at some season of the year, or contract for the purchase and supply of pulp wood for the year?

Mr. MARTIN. Yes, sir.

The CHAIRMAN. There has been no arrangement made yet for the next year?

Mr. MARTIN. They have all they want now for the next year.

The CHAIRMAN. How do you get together the pulp wood that you supply?

Mr. MARTIN. In two cases, I buy it from settlers along rivers and take out my own timber there also and drive it down to shipping points. That is shipped in the summer time. Also ship from side tracks and stations along the different roads. It is hauled all the way from 1 to 2 miles to 7 or 8 miles.

The CHAIRMAN. Is that wood that is cut on your own land or wood that settlers cut?

Mr. MARTIN. Both ways.

The CHAIRMAN. How far back do the settlers bring in wood from?

Mr. MARTIN. Some are hauling 7 or 8 miles, if they have pretty good roads.

The CHAIRMAN. When do they haul that in?

Mr. MARTIN. During the winter on sleighs.

The CHAIRMAN. Are there many settlers along that line?

Mr. MARTIN. Yes; we have a lot of them that have got a lot of wood.

The CHAIRMAN. On what road do you operate mainly?

Mr. MARTIN. Most all the roads, the Missaba and Northern, the Iron Range, the Great Northern, the Northern Pacific, and we get a little wood in Wisconsin.

The CHAIRMAN. Are there a good many settlers along all these roads, homesteaders?

Mr. MARTIN. Yes, sir; and those who have bought the lands from railroads and others.

The CHAIRMAN. It is mostly railroad land?

Mr. MARTIN. Some of it is and some is homestead, and they gradually cut so much each year and clear up.

The CHAIRMAN. The railroad land that has been sold to settlers, is that land the railroads acquired from the State or the General Government?

Mr. MARTIN. It is old land grants, most of them.

The CHAIRMAN. State land grants or government land grants?

Mr. MARTIN. Both.

The CHAIRMAN. The State land grants, I suppose, are composed of lands acquired by the State under the swamp land act?

Mr. MARTIN. Yes.

The CHAIRMAN. What character of spruce is it?

Mr. MARTIN. We have some of the best white spruce that, I guess, there is anywhere.

The CHAIRMAN. Do you sell that to the paper mills.

Mr. MARTIN. Yes, sir.

The CHAIRMAN. How large will that run?

Mr. MARTIN. From 4 inches up to 10 or 12, and some a little larger.

The CHAIRMAN. Do you cut that green in the forest when you cut it?

Mr. MARTIN. Yes; supposed to.

The CHAIRMAN. What other timber is there mixed in with the spruce or that the spruce is mixed in with in the uplands?

Mr. MARTIN. There is not much on the upland. It is mixed with tamarack and a little cedar.

The CHAIRMAN. There is no tamarack and cedar on the upland, is there?

Mr. MARTIN. Yes; a little; not very much. It is mostly in the swamps. Up on the north shore cedar grows on the highland, but there is very little spruce there on the highland.

The CHAIRMAN. Do you mean by the north shore the north shore of Lake Superior?

Mr. MARTIN. Yes.

The CHAIRMAN. Is most of the better wood the white spruce or the black swamp spruce?

Mr. MARTIN. It is what we call "white spruce" here.

The CHAIRMAN. Is the spruce that grows in the lowland white spruce too?

Mr. MARTIN. Yes, sir; we call it white. It is white.

The CHAIRMAN. At International Falls they call it black spruce.

Mr. MARTIN. Probably it is a little different color from what we have here on the rivers. We have a pretty good quality of spruce here.

The CHAIRMAN. That which grows in the low ground, how does it grow there, thick or sparse?

Mr. MARTIN. Some is in spots and some is very thick.

The CHAIRMAN. How large does that grow where it is thick?

Mr. MARTIN. We have got some that will run up, I think—some this year we have piled up on the St. Louis—that will run up to 12 and 14 inches.

The CHAIRMAN. Is that the swamp spruce?

Mr. MARTIN. Yes.

The CHAIRMAN. How does the swamp spruce average in thickness?

Mr. MARTIN. That is about what it is, from 4 inches up. We get it as low as 4 inches.

The CHAIRMAN. Four inches up is a wide limitation. What would be the average in your judgment?

Mr. MARTIN. You can not tell very well. I should say 6 or 7 inches.

Mr. RYAN. Is that a good estimate of your shipments the last year as to size?

Mr. MARTIN. Yes; I have been shipping for a good many years, and that is about my experience.

The CHAIRMAN. We saw a great deal of spruce in Wisconsin that was shipped from up here that was far from being 4 inches. Lots of it was not 2½.

Mr. MARTIN. Their contracts call for it not less than 4 inches at the top. If it is any smaller it is almost useless for paper.

The CHAIRMAN. There isn't much left by the time it rossed?

Mr. MARTIN. No.

Mr. RYAN. They had over 15,000 cords at Combined Locks that did not average over 3 to 3½ inches.

Mr. MARTIN. That was not much good. We have got a lot of good spruce in this country, and good size.

The CHAIRMAN. How widely scattered, how general is that spruce through this portion of the country? In other words, what proportion of the ground is covered, in your judgment?

Mr. MARTIN. I could not make a guess at that. In a small territory last winter I purchased a body of about 40,000 cords.

The CHAIRMAN. In how wide an area?

Mr. MARTIN. Mostly in St. Louis County.

The CHAIRMAN. I suppose there are many thousand cords of spruce in St. Louis County left?

Mr. MARTIN. Oh, yes.

The CHAIRMAN. Do these spruce forests run rather continuously or is the spruce scattered in spots?

Mr. MARTIN. It is mixed. You run into one territory where it is heavy spruce and get up on the highland and find pine.

The CHAIRMAN. There is some upland spruce scattered all through the forests?

Mr. MARTIN. Yes, sir.

The CHAIRMAN. Then there will be spots where it is almost exclusively spruce on the lower land?

Mr. MARTIN. Yes, sir.

The CHAIRMAN. That runs into tamarack?

Mr. MARTIN. Not very much tamarack, but sometimes mixed tamarack and spruce.

The CHAIRMAN. Is there much muskeg around this country?

Mr. MARTIN. Yes, sir.

The CHAIRMAN. Does anything grow in that that is worth cutting?

Mr. MARTIN. No; not very often.

The CHAIRMAN. We saw large quantities of spruce both up in Koochiching County and on the way from there here that seemed to be very small on the average, some of it not over 2 to 3 and 4 and 5 inches, and that was tall and very closely set; how old would that be?

Mr. MARTIN. You could not tell. If you saw some of the piles around here you would see some nice stuff. I have a big pile up on the Missaba road. I guess there will be about a thousand cords piled up there when we get through.

The CHAIRMAN. What will that average?

Mr. MARTIN. I think 6 inches. A little more than that. Some as high as 13 inches.

The CHAIRMAN. Is that cut from the swamp spruce?

Mr. MARTIN. Yes, sir; driven down the rivers.

The CHAIRMAN. Have you ever counted to see how old that is?

Mr. MARTIN. No. Do you mean how long it has been growing?

The CHAIRMAN. Yes.

Mr. MARTIN. No; it is older than I am, I guess.

The CHAIRMAN. I guess a good deal of it is older than your grandfather.

Mr. MARTIN. Yes, sir.

The CHAIRMAN. Is there much spruce left available close to the railroad tracks as they now lie?

Mr. MARTIN. We have a lot yet and a lot available to the rivers and the lake.

The CHAIRMAN. Lake Superior?

Mr. MARTIN. Yes.

The CHAIRMAN. How do they get spruce down that they cut on the north shore?

Mr. MARTIN. I used to, when I operated there, bring it on a scow with a tug.

The CHAIRMAN. Is there much spruce that goes out of Two Harbors?

Mr. MARTIN. I do not know what they are doing there now. I have not operated on the north shore for the last two or three years.

The CHAIRMAN. Do you know whether any spruce comes down from Port Arthur?

Mr. MARTIN. I do not know.

The CHAIRMAN. Are you familiar with the Canadian country up there?

Mr. MARTIN. No, sir.

The CHAIRMAN. You never have operated up there?

Mr. MARTIN. No, sir.

The CHAIRMAN. What will this thick spruce forest average in cords per acre?

Mr. MARTIN. That is hard to tell; it is so different. I haven't got any of my estimates here, but we have some mighty thick stuff.

The CHAIRMAN. Have you any idea what that will average in cords per acre?

Mr. MARTIN. No, I do not recall it. I have got the estimates in my office. I could give you that information before you go away.

The CHAIRMAN. Have you any idea as to the average in cords per acre of spruce wood in St. Louis County?

Mr. MARTIN. No, not as to the average. I could tell what my average is.

The CHAIRMAN. That is on your own ground?

Mr. MARTIN. My own stuff, yes.

The CHAIRMAN. Is that timber that you speak of, your own timber, on land that you own, or where you own the stumpage?

Mr. MARTIN. Mostly where I own the stumpage. Some places I own the land also.

The CHAIRMAN. Where you own the stumpage, who owns the land, the railroad company?

Mr. MARTIN. Different people.

The CHAIRMAN. After the spruce is cut off is the land being used for agricultural purposes?

Mr. MARTIN. In a good many places it is.

The CHAIRMAN. What do they do with it?

Mr. MARTIN. Farm it. They start in clearing up gradually.

The CHAIRMAN. What do they raise on it?

Mr. MARTIN. Vegetables mostly, and hay. They can raise some grain.

The CHAIRMAN. Where do they ship the vegetables to?

Mr. MARTIN. They find a market mostly in Duluth.

The CHAIRMAN. Of course, that is a very limited market for a large area of country.

Mr. MARTIN. There is a good market here, taking in the mining towns and Duluth. They do not have to go outside to sell any of their products.

The CHAIRMAN. Not yet.

Mr. MARTIN. No, the market is good. The price is a good deal different between Duluth and St. Paul.

The CHAIRMAN. Of course, that means a very limited area of farms, I take it. It does not take a large area of farming land to supply this country with vegetables.

Mr. MARTIN. We have some ten or fifteen years' settlements in here.

The CHAIRMAN. Do they raise many potatoes?

Mr. MARTIN. Yes, quite a few.

The CHAIRMAN. What percentage in your judgment of the land that has been cleared of forest is being used for agricultural purposes?

Mr. MARTIN. It would be pretty hard to guess. I don't know; I would not want to say. We have a great many more settlers here than an outsider would imagine.

The CHAIRMAN. Have you any idea as to the percentage of spruce pulp wood that you get that is cut by the settlers?

Mr. MARTIN. I presume about one-half.

The CHAIRMAN. With them that is a by-product?

Mr. MARTIN. Yes; they take that out in the winter time, and, of course, that helps them to get capital to live along until they improve their property.

The CHAIRMAN. That helps them to get money and at the same time to clear the land?

Mr. MARTIN. Yes, and build their buildings.

The CHAIRMAN. Their prime purpose is to clear the land?

Mr. MARTIN. I presume so.

The CHAIRMAN. Do they generally endeavor to take out the stumps, or simply pasture the land?

Mr. MARTIN. Lots of them have not got a stump on their land.

The CHAIRMAN. Are there any drainage systems in operation up here?

Mr. MARTIN. To my knowledge only natural drainage, creeks and rivers. In some places they have fine natural drainage.

The CHAIRMAN. Have you any estimate as to the proportion of the forest in this county which has been cut over?

Mr. MARTIN. No, I have not.

The CHAIRMAN. Do you think anyone knows the quantity of timber standing in this county?

Mr. MARTIN. Oh, yes; we have people here that have a pretty good idea.

The CHAIRMAN. Who would that be, for instance?

Mr. MARTIN. There are several of them, I should imagine. I don't know much about my competitor's business.

The CHAIRMAN. You think he knows about your business, though?

Mr. MARTIN. He may.

The CHAIRMAN. Is there any way we can get at, that you know of, the amount of spruce or other forest in this locality which has been cut over and the amount which is still standing?

Mr. MARTIN. No; but I can imagine that take the pulp-wood business, from what I know of it, there is probably enough here to supply the mills up in this country for probably twenty-five years yet.

The CHAIRMAN. That would include the Wisconsin mills?

Mr. MARTIN. Yes, sir.

The CHAIRMAN. You say up in this country. Do you mean northern Minnesota by that?

Mr. MARTIN. Northern Minnesota and Wisconsin.

The CHAIRMAN. There is no spruce wood left in Wisconsin?

Mr. MARTIN. We get quite a bit there in the winter.

The CHAIRMAN. Do you cut some over there?

Mr. MARTIN. No; we get it from the contractors and settlers.

The CHAIRMAN. Most of the pulp wood over there is hemlock, isn't it?

Mr. MARTIN. No; we do not take any hemlock. It is all spruce.

The CHAIRMAN. Your contracts do not cover hemlock?

Mr. MARTIN. No.

Mr. RYAN. Where you buy the stumpage on a piece of ground, is there any restriction as to how that shall be cut?

Mr. MARTIN. It specifies what timber you cut.

The CHAIRMAN. In what way; what would it say in that regard?

Mr. MARTIN. You would buy outright tamarack and cedar, spruce and pine or whatever you bought.

Mr. RYAN. Whatever you buy you cut, no matter what it is as to size.

Mr. MARTIN. Yes, sir. There is no size specified in their contracts.

The CHAIRMAN. You cut it clean, I take it?

Mr. MARTIN. We cut it in accordance with the contracts that we sell on. The timber is ours when we pay for it, the same as if we owned the land, for a certain number of years. We have possession

of it. You can get one of our Minnesota timber deeds and see what the provisions are.

Mr. RYAN. No provision for conservation of any timber?

Mr. MARTIN. Not unless there is special arrangements for it.

Mr. RYAN. Take the timber land that you own yourself, do you cut it all?

Mr. MARTIN. We do not cut anything that is no good. We cut what will pass under our contracts in selling it.

The CHAIRMAN. You cut all kinds of timber?

Mr. MARTIN. Yes, sir.

The CHAIRMAN. Cut it down as small as it can be used?

Mr. MARTIN. Cut it so that it will pass inspection and we get our money for it.

The CHAIRMAN. What is left, I suppose, is no good for timber?

Mr. MARTIN. Culls is no good.

The CHAIRMAN. Is there any second growth of timber up here?

Mr. MARTIN. Not that I know of, that is big enough to be of any use in the market now.

Mr. RYAN. Nobody paying much attention to the second growth stuff?

Mr. MARTIN. No.

The CHAIRMAN. Have the forest fires damaged the forests up here very much?

Mr. MARTIN. I do not think very much in the swamps. In fact, I have not had a stick of timber burned this year, standing timber.

The CHAIRMAN. There has been same damage along the north shore on the high ground?

Mr. MARTIN. Yes.

The CHAIRMAN. But the black spruce swamps have not been injured materially?

Mr. MARTIN. I do not think they have been injured very much.

The CHAIRMAN. Is there any adequate protection from forest fires outside of what nature does?

Mr. MARTIN. Nature has to do it here mostly.

The CHAIRMAN. Would it be advisable in your judgment for the Government in some way, either the State or the General Government or the local government, to provide adequate, or as nearly adequate as possible, protection from forest fires?

Mr. MARTIN. It would be a great help.

The CHAIRMAN. Have you any idea as to the amount of timber along the north shore that has been destroyed by forest fires this last season?

Mr. MARTIN. No, sir.

Mr. RYAN. Are you selling any spruce wood now in Wisconsin?

Mr. MARTIN. I sold them enough last fall, I guess, to do.

Mr. RYAN. You have no contracts just now?

Mr. MARTIN. Only the old ones.

Mr. RYAN. What do you get for spruce timber?

Mr. MARTIN. I have forgotten what the price was on that last year. I have been away all winter.

The CHAIRMAN. The price delivered in Wisconsin was \$11 a cord?

Mr. MARTIN. I think that is about it. Of course, we have nothing to do with the delivering of it after it leaves here.

The CHAIRMAN. Freight rate \$5 a cord. What would it sell for up here; about \$6 a cord.

Mr. MARTIN. That is about what it brought along the different railroads. That is about the average that the large contractors got.

Mr. RYAN. Freight from where to where?

Mr. MARTIN. From those local points into Duluth.

The CHAIRMAN. That is on a basis of about \$6 a cord at Duluth?

Mr. MARTIN. Yes, taking out the freight.

The CHAIRMAN. Is there much of this pulp wood purchased or traded for by merchants along the railroads?

Mr. MARTIN. Yes, in some places.

The CHAIRMAN. Do the pulp-wood middlemen deal with the merchants, largely, or generally with the settlers themselves?

Mr. MARTIN. Sometimes with purchasers. If they have the stuff they buy it from them. The merchants, about all they make out of it is the profit on their goods.

The CHAIRMAN. Do you have people go through where the settlers are hunting for this pulp wood?

Mr. MARTIN. Yes, sir.

Mr. RYAN. The freight rate from here to Wisconsin points would be about \$4 a cord?

Mr. MARTIN. Something like that.

The CHAIRMAN. Do the lumbermen who cut saw logs save any pulp wood?

Mr. MARTIN. Oh, yes; some of them take out pulp wood.

The CHAIRMAN. Is that a general thing or an exceptional thing?

Mr. MARTIN. I do not know just what they did here last winter. I was away. Some of them take out pulp wood.

The CHAIRMAN. Do you buy much pulp wood from the men who are cutting saw logs?

Mr. MARTIN. Yes; I have.

The CHAIRMAN. Are you familiar with the inquiry that the Bureau of Corporations is conducting as to the forests?

Mr. MARTIN. Yes; I have heard of it and read of it in the newspapers.

The CHAIRMAN. Have you furnished them any information?

Mr. MARTIN. No.

The CHAIRMAN. They have been up here, haven't they?

Mr. MARTIN. I haven't seen them.

The CHAIRMAN. When you make an estimate of pulp-wood supply lasting for twenty-five years, is that a mere guess?

Mr. MARTIN. It is a kind of a guess, but I know pretty well what the country is like. No man can give you an accurate estimate because we have not estimated the other fellow's stuff altogether, you know.

The CHAIRMAN. Is that general estimate of yours based upon the present consumption of pulp wood?

Mr. MARTIN. Yes, sir.

The CHAIRMAN. Does that include, as far as your judgment goes, the pulp wood in all of northern Minnesota?

Mr. MARTIN. In this territory, Minnesota and Wisconsin.

The CHAIRMAN. That includes the Rainy River basin?

Mr. MARTIN. Yes; we call that this territory. It may be a good deal longer than that. That is conservative.

The CHAIRMAN. That is a guess?

Mr. MARTIN. Yes. I have spent about twelve years in the timber business here.

The CHAIRMAN. Is there a noticeable cutting of pulp wood through here in the last ten years?

Mr. MARTIN. Oh, yes. If you go through where it has been cut you will know it. There is a lot growing here yet.

The CHAIRMAN. But you could tell easily that a large portion of the pulp wood had been already consumed?

Mr. MARTIN. Yes. I do not know as I can explain it exactly, but there is only a small portion of the timber land of the homesteaders cut yet, and there is lots that has never been entered upon. lots of the big tracts, and the State has a lot here yet.

The CHAIRMAN. Where is that?

Mr. MARTIN. That is in St. Louis County.

The CHAIRMAN. Is it subject to settlement?

Mr. MARTIN. The timber is subject to sale.

The CHAIRMAN. And the land?

Mr. MARTIN. I think they mostly sell the timber.

The CHAIRMAN. They sell it to be cut clean?

Mr. MARTIN. Yes; within a certain time.

The CHAIRMAN. We are very much obliged to you.

Mr. MARTIN. You are entirely welcome.

STATEMENT OF DAVID J. CURRY, OF DULUTH, MINN.

(Sworn and examined by the Chairman.)

The CHAIRMAN. Will you give your full name?

Mr. CURRY. David J. Curry.

The CHAIRMAN. What company are you connected with?

Mr. CURRY. Curry & Whyte.

The CHAIRMAN. That is of Duluth?

Mr. CURRY. Yes, sir.

The CHAIRMAN. You heard the testimony of Mr. Martin and the questions which were asked him. Can you state something in your own way which would be of value to us along the same line?

Mr. CURRY. In listening to him, I thought he made it conservative. The amount that has been cut off only covers a distance along each of these roads running into northern Minnesota, say from 2 to 4 or 5 or 6 miles back, and in many instances the pulp wood comes up to the track, so that in looking at the roads running in there you would get a fair idea of the amount cut off, taking a strip on each side of the track of 3 or 4 miles. That would give you a good idea of how much territory has been cut clean.

The CHAIRMAN. Mr. Martin stated that more or less of the wood had been cut along the rivers and driven down.

Mr. CURRY. I think only the St. Louis and White River. Outside of that there has not been very much pulp wood driven. They cut a little across the lake at Tower, but it doesn't amount to anything.

Mr. RYAN. Along the railroads you refer to, is that along the main lines?

Mr. CURRY. Yes; along the main lines and logging roads.

The CHAIRMAN. How much pulp wood do you think you handle in the course of a year?

Mr. CURRY. We do not handle very much. Eight or nine thousand cords—somewhere along there.

The CHAIRMAN. What is the principal business of Curry & Whyte?

Mr. CURRY. Ties and logs.

The CHAIRMAN. Poles?

Mr. CURRY. Yes; we handle some poles.

The CHAIRMAN. Where do you cut mainly?

Mr. CURRY. In Lake County.

The CHAIRMAN. On your own land?

Mr. CURRY. Mostly on our own land. We buy some.

The CHAIRMAN. Do you mean by your own land where you own the land or the timber?

Mr. CURRY. In most cases we only own the timber. We own some land. We have bought mostly from the homesteaders, and they generally want to retain the land or the mineral rights, or something of that kind. We are not always able to get the land.

The CHAIRMAN. Do you buy the stumpage mainly from the homesteaders?

Mr. CURRY. Yes; we have bought some from the logging companies.

The CHAIRMAN. Do you cut any saw logs?

Mr. CURRY. Yes, sir.

The CHAIRMAN. What is the main business, cutting out saw logs or ties?

Mr. CURRY. Ties is our main business.

The CHAIRMAN. What do you cut for ties mainly?

Mr. CURRY. Cedar and tamarack.

The CHAIRMAN. You use the larger cedar for ties?

Mr. CURRY. Yes, sir.

The CHAIRMAN. Only use the smaller cedar for poles?

Mr. CURRY. Posts. A tie runs you down to about $7\frac{1}{2}$ inches at the top, and there is not enough left for a pole, and you get two or three posts.

The CHAIRMAN. It is more profitable to cut cedar into ties than into poles?

Mr. CURRY. I always think it is. There is always a steady demand for the ties, and the poles you are not always able to sell.

The CHAIRMAN. I thought they were cutting telegraph poles up here?

Mr. CURRY. That is only now and then.

The CHAIRMAN. Do these ties go out of the State?

Mr. CURRY. A good many of them go as far west as Montana. Some of them as far south as Chicago.

The CHAIRMAN. A cedar tie is an exceptionally good tie, isn't it?

Mr. CURRY. Yes. We got the same price for tamarack last year as for cedar. It is the first year we have been able to do it.

The CHAIRMAN. What is done with the small tamarack?

Mr. CURRY. There isn't anything done with it so far. The man cutting ties has not been able to handle the smaller part of it to get anything out of it.

The CHAIRMAN. You do not cut any of it for cord wood?

Mr. CURRY. No; wood is too plentiful.

The CHAIRMAN. A tie has to be at least $7\frac{1}{2}$ inches?

Mr. CURRY. Oh, no; they take it about 5 by 5½ or 5½ by 6, something like that.

The CHAIRMAN. Is your cutting of pulp wood incidental to the cutting of ties?

Mr. CURRY. No; we cut everything clean as we go along. The land we cut over we cut clean.

The CHAIRMAN. Is your main purpose to cut ties, and as you clean the land you use this small spruce for pulp wood?

Mr. CURRY. Yes; we take all the spruce there is on the land. This last year we have been able to buy more spruce than tie stuff.

Mr. RYAN. Why is that?

Mr. CURRY. The majority of the claims left are more spruce. That is, the pine claims and larger tamarack claims were taken up years ago, and the home seekers who have gone in in the last four or five years have not been able to get a claim that had much of anything on it but spruce and small tamarack.

The CHAIRMAN. That would be low ground?

Mr. CURRY. Not always in low ground. There is possibly some low ground.

The CHAIRMAN. You do not find much tamarack growing on high ground, do you?

Mr. CURRY. Yes; we find considerable. This ground up through Lake County, you take it on top of the hills you will find a wet swamp up there. They call it high land. The State, I think, has several cases on now where the land is high, and they claim it is swamp for the reason it is wet. The homesteaders squatted on it before the survey was made.

The CHAIRMAN. When we refer to high land and low land we have reference to the quantity of moisture.

Mr. CURRY. On this high land you will find plenty of moisture.

The CHAIRMAN. It is swampy land?

Mr. CURRY. It would be swampy land. The bottom is very rocky and solid, and the bottom does not seem to dry.

The CHAIRMAN. Have you any idea as to the number of cords you can get per acre from a dense spruce forest?

Mr. CURRY. I could give you an idea of what we have estimated this summer.

The CHAIRMAN. Yes.

Mr. CURRY. We estimated 72 forties that ran over 400 acres to the forty.

The CHAIRMAN. That would be 10 cords an acre.

Mr. CURRY. Thereabouts. That was in one tract. I think that is probably higher than the average spruce. I would call it a very good piece.

The CHAIRMAN. That had considerable spruce on it?

Mr. CURRY. Yes; that was good spruce land.

Mr. RYAN. What size were the spruce trees?

Mr. CURRY. In estimating that we estimated what was 4 inches at the top, making a couple of sticks 4 inches at the top up to as large as it would grow. It ran in that tract up to 12 or 14 inches, which is a swamp spruce.

The CHAIRMAN. Where you cut this clean is there any reproduction of the forest in Minnesota at all?

Mr. CURRY. Yes; you can find some where it was cut over eight or nine years ago up along the Iron Range road, where there is quite a young growth of spruce left, and in places where the fire does not get in the spruce does not die out. There is moisture enough so that the young spruce grows, and grows faster than it did before the other was cut out.

The CHAIRMAN. Does fire always eventually get into that young spruce?

Mr. CURRY. No; take it along the logging roads they do not clear any right of way and generally it burns. Along the Iron Range road last year where it was cut off eight or ten years ago there is a good growth of spruce.

The CHAIRMAN. How large would that spruce be?

Mr. CURRY. That would be now probably 4 to 5 inches at the butt of the tree.

The CHAIRMAN. Do you think we can find any spruce up there that has been cut over where the young spruce is 5 inches at the butt?

Mr. CURRY. I think you can, unless it has burned within the last two months.

The CHAIRMAN. It would still be there, burned or not?

Mr. CURRY. Yes; the spruce will be there.

The CHAIRMAN. That would seem to indicate that spruce would grow rather rapidly.

Mr. CURRY. Say it was cut seven or eight years ago. They took everything, as I say, down to 4 inches; that is, that would make a stick 4 inches at the top. That has grown some since so that there would be some there. In fact, I cut some last winter out of spruce that had been cut before.

The CHAIRMAN. That was spruce that was standing when it was cut over before.

Mr. CURRY. Yes, sir.

The CHAIRMAN. Generally where they cut over the small spruce is there any of it left; isn't it all broken down?

Mr. CURRY. No; the spruce is light and in falling it does not break the other down. You can go in and see that small spruce which is left standing from the cutting.

The CHAIRMAN. We have not seen any in traveling over the State.

Mr. CURRY. There is some up here.

The CHAIRMAN. We have seen quite a bit of spruce forest where it would run from 2 to 4 inches generally, with some around that would go considerably more than that, and I have wondered whether when that was cut there would be anything left.

Mr. CURRY. Take where Mr. Caldwell cut up here, there is quite a growth of young spruce left. In a dry season like this the swamps do not burn.

The CHAIRMAN. Have you any idea as to the age of the spruce in the dense forest?

Mr. CURRY. I never tried to look that up.

The CHAIRMAN. Never figured on that at all?

Mr. CURRY. No.

The CHAIRMAN. What do you call this—all white spruce?

Mr. CURRY. We have always called it white spruce.

The CHAIRMAN. The spruce that grows in the muskeg?

Mr. CURRY. Yes, sir.

The CHAIRMAN. You think it is all the same character of spruce?

Mr. CURRY. It is all the same character. There is a whiter spruce that grows on the high land—a lighter colored bough and lighter colored bark. The wood is not any whiter, that I can see. It is a softer spruce.

The CHAIRMAN. You think there is a slight difference?

Mr. CURRY. Yes; there is a slight difference.

The CHAIRMAN. Do you call it all white spruce?

Mr. CURRY. Call it all white spruce; yes.

Mr. ARNOLD. Will you let me make a suggestion?

The CHAIRMAN. Certainly.

Mr. ARNOLD. My cruiser, in reporting a great deal of our land, reports the muskeg, which they report upon as being fairly open or covered with scattered growth, and sometimes a dense growth of small black spruce. I have always understood that that was not a pulp-wood spruce, that is, was not spruce that was considered merchantable.

Mr. CURRY. I think that is. That muskeg, I have found it with spruce growing in it. After it gets high there is so much moisture or something in it that it dies off. Whether it is wet or not, I don't know. You will find it dying after it gets a certain height. The young growth will look green and nice. That is only in a low muskeg place that I have found it that way.

The CHAIRMAN. We have seen some pretty dense forests growing in the muskeg.

Mr. ARNOLD. I know we have thousands of acres of that kind of stuff. Sometimes there is practically no timber on it, just moss, and then it will grow in bunches, and sometimes forests of this small dense spruce. We do not consider that of any value except a possible future for the land in an agricultural way that we are now trying to work out with the aid of the university here.

The CHAIRMAN. Very likely it is of no value except that it makes a very good quality of ground wood where it is large enough to be profitable to handle.

Mr. ARNOLD. I have always understood from our university people here who are connected with the forestry department that there is a difference between the growth of that character of spruce and the other spruce that we get.

The CHAIRMAN. The upland spruce is undoubtedly somewhat different, but still there will be lots of that that has grown very small. I suppose that very likely what they call the muskeg where it is extremely wet does not grow long-lived spruce. There comes a season when either by reason of the water freezing around it or by reason of the excessive standing in water it may kill it off. Where the muskeg is not quite so wet we have lots of dense black spruce forest, and they call that muskeg.

Mr. ARNOLD. Is that of a merchantable size or quality?

The CHAIRMAN. Oh, yes. That is mostly what they have down here at the paper mills, and if you will keep yours, with a little drainage for a hundred years, and keep the forest fires out, you likely will be able to do something with it. May be in less time than that. Have you any judgment, Mr. Curry, as to the effect of the drainage of the ground upon the spruce forests?

Mr. CURRY. I haven't had any experience in that. I would say, though, that it would kill the spruce, although on the north shore you find spruce that grows from 10 inches to 2 or 2½ feet through that is not in the swamp at all. It is on high land.

The CHAIRMAN. Have you any estimate as to the quantity of forest left standing in St. Louis County, and particularly the spruce forest?

Mr. CURRY. No.

The CHAIRMAN. Have you any estimate as to the proportion of the forest that has been cut over?

Mr. CURRY. I do not think a fifth of it has been cut.

The CHAIRMAN. Do you think close to one-fifth has been cut?

Mr. CURRY. Possibly.

The CHAIRMAN. Is the forest up here mainly pulp-wood forest or is it saw log?

Mr. CURRY. I should say a good deal of it was saw log. The better part is saw log.

The CHAIRMAN. Do you think more than 50 per cent of it is good for saw logs?

Mr. CURRY. Yes, sir.

The CHAIRMAN. Would there be some pulp wood in that forest?

Mr. CURRY. Yes; in that there would be some.

The CHAIRMAN. Usually where they cut for saw logs, do they save the pulp wood?

Mr. CURRY. Yes; they do now. The price is so that if they do not save it themselves they sell it to some small jobber, who gets it out.

The CHAIRMAN. Goes over after them and picks it up, you mean?

Mr. CURRY. Yes, sir; generally the same year that they cut the logs off.

The CHAIRMAN. Is that done more or less?

Mr. CURRY. Yes, sir.

The CHAIRMAN. Quite considerably?

Mr. CURRY. Yes, sir.

The CHAIRMAN. Is that where the lumbermen cut out all the logs that they can?

Mr. CURRY. Yes.

The CHAIRMAN. Some contractor goes in and saves what is left?

Mr. CURRY. Yes, sir. I do not think you will find any of the lumbermen letting their timber go to waste as they used to.

The CHAIRMAN. Would that include any of the tops?

Mr. CURRY. That would take out a stick out of the top if there was any left. A man cutting logs takes his logs down as low as you cut pulp wood, 4 inches.

The CHAIRMAN. What do they do with that 4-inch stuff?

Mr. CURRY. Make lath.

The CHAIRMAN. So that when they cut it for lumber, for saw logs, there is not very much left?

Mr. CURRY. In the swamps, if there isn't any pine, they won't go in and cut the spruce for logs, but if they should be out in pine cutting some spruce scattered in there, they cut it down to 4 inches, the same as they cut their pine.

The CHAIRMAN. Is the forest up here on the higher land largely white and Norway pine?

Mr. CURRY. White pine until you get to the north part of the county and then you get Norway. Lake County has but very little Norway in it.

The CHAIRMAN. Are settlers generally cutting during the winter?

Mr. CURRY. Yes, sir.

The CHAIRMAN. They put in their time during the winter cutting pulp wood mainly?

Mr. CURRY. And ties; yes, sir.

The CHAIRMAN. Is there any effort that you are acquainted with being made to drain this land?

Mr. CURRY. Not in this part of the State. I think the State is putting in some drainage ditches in the western part of the State, not up in the northern part.

The CHAIRMAN. Have you any estimate as to how long the spruce forests here would last at the present rate of consumption?

Mr. CURRY. It would be considerable of a guess. I should say from thirty to forty years. As I say, in looking over the railroads as they run through the different parts of the State you would get a pretty good idea of the amount cut over. It could be found how much has gone out of this territory, and a good average could be figured from that as to how much was left.

Mr. RYAN. Your estimate, of course, is just a guess?

Mr. CURRY. Just a guess.

The CHAIRMAN. What do you figure the annual cut would be for forty years to exhaust the supply?

Mr. CURRY. I presume they get out of this territory somewhere in the neighborhood of a million cords a year.

Mr. RYAN. You think that there is perhaps about 40,000,000 cords standing in Minnesota of spruce?

Mr. CURRY. Yes; I think there is that, if not more.

The CHAIRMAN. You base your statement as to the supply which now stands upon your experience and observation from seeing the forests disappear during the last few years?

Mr. CURRY. Yes, sir.

The CHAIRMAN. How long have they been cutting pulp wood up here?

Mr. CURRY. I think they have been cutting for about ten years; that is, in quantities. I do not know but they cut a little before that.

The CHAIRMAN. How long since the Wisconsin mills commenced to work in this territory?

Mr. CURRY. I think about ten years; possibly fourteen.

The CHAIRMAN. Before they commenced to cut spruce pulp wood up here was this small spruce forest considered of any value?

Mr. CURRY. No; I do not think it was. They did not try to save it, at least, or do anything with it. There wasn't any demand for spruce lumber at that time.

The CHAIRMAN. You can not use that small stuff for spruce lumber?

Mr. CURRY. It makes good lath and a 6 or 7 inch spruce they cut into lumber.

The CHAIRMAN. You said a moment ago that the lumbermen, in cutting over, if they came to a spruce swamp they would not go in there unless there was pine there?

Mr. CURRY. No.

The CHAIRMAN. They won't go in there to get out that lath?

Mr. CURRY. No.

The CHAIRMAN. They only take for lath the spruce that they find in the forest?

Mr. CURRY. Yes; in their pine cutting.

The CHAIRMAN. If they ran short of spruce in the pine cutting, they might go in and commence to cut pulp-wood spruce for lath?

Mr. CURRY. No, sir. I do not know but what the Cook and O'Brien people cut some spruce for lath, I am not sure of it, at Virginia.

The CHAIRMAN. We saw some very nice-looking saw logs at Virginia. I don't think I saw any small stuff.

Mr. RYAN. They did try that and they have a very nice lath mill there. They did try it a couple of years ago. Whether it did not pay or what I don't know. They may not be cutting it now.

The CHAIRMAN. If the pulp wood at the present rate of consumption would entirely disappear in forty years here, what will they do for pulp wood then?

Mr. CURRY. There are other places. There is considerable in the West.

The CHAIRMAN. If half of what is now remaining should disappear in twenty years, don't you think that would have the effect of increasing the price of pulp wood for the remaining twenty years?

Mr. CURRY. Possibly it would. I presume it would, except that they might shift their mills into the West or South or somewhere where there was more spruce.

The CHAIRMAN. That is assuming that there is spruce in those countries, but, as a matter of fact, there is not much spruce in the South.

Mr. CURRY. There is in the West.

The CHAIRMAN. So far as we can ascertain, not very much in the West.

Mr. CURRY. I was offered a tract in the South last year.

The CHAIRMAN. Where?

Mr. CURRY. I have forgotten just what point. I have letters at the office.

The CHAIRMAN. Of pulp-wood spruce?

Mr. CURRY. Yes, sir.

The CHAIRMAN. Do you care to state what State it is in?

Mr. CURRY. I don't know. But I can get you the letters over there.

The CHAIRMAN. I wish you would. If we can find pulp wood down there we would like to find it.

Mr. CURRY. I think the letters are there yet. I am sure they are.

The CHAIRMAN. I think I have never seen any spruce growing in the South.

Mr. CURRY. It was a new one to me when that came up.

The CHAIRMAN. Maybe he thinks jack pine is spruce. There is lots of that down there.

Mr. CURRY. There is considerable spruce in the West. I have been there.

The CHAIRMAN. There is some spruce in Idaho?

Mr. CURRY. Yes, sir.

The CHAIRMAN. Some in Montana?

Mr. CURRY. Yes.

The CHAIRMAN. Some all over the Rocky Mountains, but that is hardly available to this market. Is there spruce in Oregon?

Mr. CURRY. Yes, sir.

The CHAIRMAN. Large spruce?

Mr. CURRY. Yes; very large.

The CHAIRMAN. Useful mostly for saw logs?

Mr. CURRY. Yes; I have seen some as large cut over at the Soo. They get some very large spruce in there, 2 or 3 feet through.

The CHAIRMAN. Do you know how far the spruce forests run to the north, or are you familiar with the Canadian forests?

Mr. CURRY. I have not been to Canada. I have been up to the line along the Rainy River. There is spruce clear to the line.

The CHAIRMAN. We have just been over that territory. Do you handle spruce in Lake County?

Mr. CURRY. Yes, sir.

The CHAIRMAN. Do you send any from Two Harbors?

Mr. CURRY. No; we handle ours on to the railroad that runs in north and west of Two Harbors.

The CHAIRMAN. Would it be practicable to take across Lake Superior spruce from the north shore by water?

Mr. CURRY. They do it; yes. They took spruce this year from there.

The CHAIRMAN. That is, by boat or raft?

Mr. CURRY. They rafted some across, the Schroeder Lumber Company, of Ashland. I think the docks are at Milwaukee. They have mills at Ashland.

The CHAIRMAN. What is the character of ground up in Lake County mostly, low or high and rocky ground?

Mr. CURRY. There is considerable of rock and a good deal of swamp.

The CHAIRMAN. Is that an iron-mining territory?

Mr. CURRY. No; no iron mines in there yet.

The CHAIRMAN. Is there supposed to be iron ore there or not?

Mr. CURRY. They have never found any, I guess.

The CHAIRMAN. All along the north shore of Lake Superior is there iron?

Mr. CURRY. I do not think anybody has found any yet.

The CHAIRMAN. Is it a rough country?

Mr. CURRY. Yes; near the lake. Ten or 15 miles back it is not so bad.

The CHAIRMAN. Are there any rivers flowing into Lake Superior up there?

Mr. CURRY. Yes, sir.

The CHAIRMAN. Would it be practicable to bring down from that shore pulp wood or saw logs to Lake Superior?

Mr. CURRY. They have brought some, but the rivers are very steep running in there and very rough. The railroad is the proper way to get that out of there.

The CHAIRMAN. Is there any water power up there?

Mr. CURRY. Yes; there will be if developed.

The CHAIRMAN. Where?

Mr. CURRY. Cross River has very nice power.

The CHAIRMAN. Where is Cross River?

Mr. CURRY. It is about 60 miles from here.

The CHAIRMAN. Do you know where Gooseberry River is up there?

Mr. CURRY. Yes, sir.

The CHAIRMAN. Where is that?

Mr. CURRY. That is about 35 miles from here, 20 miles from Two Harbors.

The CHAIRMAN. How far is it from Two Harbors?

Mr. CURRY. Two Harbors is 20 miles.

The CHAIRMAN. Do you know of any pulp wood being shipped out of Port Arthur?

Mr. CURRY. No. There is considerable shipped from Two Harbors, though.

The CHAIRMAN. Have you any judgment as to the number of cords of pulp wood this county would average?

Mr. CURRY. Taking all the land uncut, I suppose you mean?

The CHAIRMAN. All the land uncut and cut.

Mr. CURRY. No.

The CHAIRMAN. Have you any as to the land that is uncut?

Mr. CURRY. No; I would not have. We have estimated quite a lot of it. Some of it doesn't run very much and some of it runs, as I say, up to 10 or 12 cords to the acre.

The CHAIRMAN. Have you furnished any information to the Bureau of Corporations in their investigations?

Mr. CURRY. I think there was an inquiry at the office, but I do not pay any attention to that part of it. My part is the woods parts of the business. I think Mr. Whyte made some kind of a timber report to the State people here a short time ago.

The CHAIRMAN. That is the General Land Department?

Mr. CURRY. I don't know what it is for. It might have been to Washington for all I know. That was only on the land that we owned.

The CHAIRMAN. Are you buying any pulp wood now?

Mr. CURRY. Cut, do you mean, or stumpage?

The CHAIRMAN. Cut.

Mr. CURRY. No, sir; we are not.

The CHAIRMAN. Are you disposing of any, shipping any?

Mr. CURRY. We haven't any contracts for this year. We filled our contracts for last year, got done shipping a month or so ago.

The CHAIRMAN. What did you get last year for pulp wood?

Mr. CURRY. We got on an average about \$6, about \$7.25 in Duluth. That would be about \$6 for the wood.

The CHAIRMAN. About \$6 at the station on the railroad?

Mr. CURRY. On the cars; yes.

The CHAIRMAN. That is a little higher than I supposed it was. It is not likely to be as high next winter, is it?

Mr. CURRY. That is the highest we have ever gotten for it.

Mr. RYAN. Have you some on hand now?

Mr. CURRY. No.

The CHAIRMAN. Do you remember when the Wisconsin Mills a year ago last March or February purchased a lot of pulp wood in Quebec?

Mr. CURRY. I heard some talk of it, but I was not familiar with it.

The CHAIRMAN. Was there a shortage of pulp wood then?

Mr. CURRY. The pulp mills did not come here to buy until quite late, and then a heavy snow storm came in November, I think, along about the 17th, which really put the pulp-wood cutters out of business. They could not get through the snow to cut it. There was from 4 to 5 feet of snow through Lake County and the northern part of the State.

The CHAIRMAN. How long did that stay on the ground?

Mr. CURRY. Until the next April or May.

The CHAIRMAN. It was the heavy fall of snow that prevented?

Mr. CURRY. Yes, sir.

The CHAIRMAN. I got the impression it was the lack of snow.

Mr. CURRY. No, it was a year ago last winter. There was a very heavy snow here. We had to shovel for every stick that we got after the middle of November.

Mr. RYAN. The snow came before the ground froze up?

Mr. CURRY. Yes, sir.

The CHAIRMAN. That is, you had to shovel to get down low enough to get the horses through?

Mr. CURRY. To get the horses through.

The CHAIRMAN. Where you want to cut wood where there is 4 or 5 feet of snow would you cut it higher up from the ground?

Mr. CURRY. You would have to if you would cut it at all. That is the reason there was a shortage. People couldn't get it.

The CHAIRMAN. There was no pulp wood cut that winter, then?

Mr. CURRY. No.

The CHAIRMAN. Is there a considerable supply of pulp wood already cut up in this country now?

Mr. CURRY. I think there is not so very much cut. There is some. I think Mr. Martin has as much as anybody, who was here before me. There is not such a great amount cut now.

The CHAIRMAN. The mills are all stocked up pretty well with pulp wood?

Mr. CURRY. Yes, sir.

The CHAIRMAN. Is there likely to be a great quantity of pulp wood cut this winter?

Mr. CURRY. No; I do not think that there will be, for the reason that they have not come out to make any contracts yet, and it is getting so late that people won't put in camps after snow comes, to cut pulp wood.

The CHAIRMAN. The settlers will still probably cut wood on their own account?

Mr. CURRY. They will take it out a little.

The CHAIRMAN. What is cord wood worth up here?

Mr. CURRY. I think \$6 a cord.

The CHAIRMAN. Delivered where?

Mr. CURRY. At Duluth.

The CHAIRMAN. Delivered at the station in Duluth?

Mr. CURRY. I think so. That is hard wood.

The CHAIRMAN. Isn't there a large amount of cord wood burned here?

Mr. CURRY. Yes; a very large amount.

The CHAIRMAN. What does it cost delivered at the house?

Mr. CURRY. Seven dollars, I think. I have never bought any.

The CHAIRMAN. What kind of wood is that?

Mr. CURRY. Birch or maple.

The CHAIRMAN. Is there much maple up here?

Mr. CURRY. But very little.

The CHAIRMAN. What kind of maple?

Mr. CURRY. Soft maple.

The CHAIRMAN. Soft maple or sugar maple?

Mr. CURRY. It is sugar maple all right, but it doesn't grow as it does east or in Canada. It doesn't grow so large.

The CHAIRMAN. Does it grow in dense forests?

Mr. CURRY. No; just a ridge here and there. There is a little up in Lake County, very nice sugar bush.

The CHAIRMAN. How much poplar is there up here?

Mr. CURRY. There isn't so very much poplar until you get over where the water runs toward Canada. You strike a lot there.

The CHAIRMAN. How far over is that from here?

Mr. CURRY. That would be about Tower, 15 miles north of Tower, I should say.

The CHAIRMAN. How near does the Rainy River basin come to Lake Superior; do you remember?

Mr. CURRY. I do not.

The CHAIRMAN. There is a very narrow fringe that drains into Lake Superior, I take it, until you get into the Nippigon country.

Mr. CURRY. Yes.

The CHAIRMAN. How large does the poplar grow here?

Mr. CURRY. Not very large.

The CHAIRMAN. What is it used for?

Mr. CURRY. They are sawing it now into lumber—what they get here.

The CHAIRMAN. What would be the proportion, in your opinion, as to poplar and spruce in your forests?

Mr. CURRY. There is not so very much poplar. They do not get out very much. I have been up through the Rainy River country and I know after I got over the height of land going the other way that there was small poplar—second-growth poplar—mixed in with it. They used to cut it in Wisconsin years ago for pulp wood. They do not buy any from us here now. They took some balsam last year.

The CHAIRMAN. Is there much balsam here?

Mr. CURRY. There is a large growth of balsam.

The CHAIRMAN. More than there is of spruce?

Mr. CURRY. Yes, ever so much more.

The CHAIRMAN. What is the prevailing tree in the forests here?

Mr. CURRY. You would mean in thousand feet?

The CHAIRMAN. Either way.

Mr. CURRY. I presume there is more pine than anything else.

The CHAIRMAN. White or Norway?

Mr. CURRY. Together.

The CHAIRMAN. What would come next, in your opinion?

Mr. CURRY. I believe spruce would come next, and tamarack.

The CHAIRMAN. I thought you said more balsam than spruce.

Mr. CURRY. In thousand feet. Logging timber I am speaking of now.

The CHAIRMAN. After spruce would come tamarack?

Mr. CURRY. Yes, sir. If you are getting that into cords for pulp wood, I believe there would be more balsam than spruce or tamarack. The CHAIRMAN. Do they use tamarack for saw logs?

Mr. CURRY. Yes, sir.

The CHAIRMAN. Including the timber for all purposes, which do you think would be the prevailing timber next to pine or including pine?

Mr. CURRY. I think spruce would be the prevailing timber, probably because the balsam does not grow large enough to make lumber of.

The CHAIRMAN. How large does the balsam grow?

Mr. CURRY. From 4 to 5 or 6 inches. After a balsam gets to be any size it rots at the butt. You can not get a large balsam that is sound at the ground. As soon as it gets about 8 or 9 inches through, it rots at the ground.

The CHAIRMAN. If balsam could be used for pulp-wood purposes by itself that would add very largely to the supply of pulp wood here?

Mr. CURRY. Yes, sir.

The CHAIRMAN. I think they could use about 10 per cent now without any great difficulty.

Mr. CURRY. One contractor told me that he was allowed to ship 20 per cent last year. That was a man up at Bassett. He was shipping to an Eau Claire mill, I think.

The CHAIRMAN. That mill is a mill we have not seen.

Mr. CURRY. There is a mill at Eau Claire.

STATEMENT OF THOMAS H. MARTIN, OF DULUTH, MINN.

(Sworn and examined by the chairman.)

The CHAIRMAN. What is your name?

Mr. MARTIN. Thomas H. Martin.

The CHAIRMAN. Connected with what company?

Mr. MARTIN. Martin Brothers.

The CHAIRMAN. At Duluth?

Mr. MARTIN. Yes, sir.

The CHAIRMAN. What business are they engaged in?

Mr. MARTIN. In the tie, pulp wood, posts, and logs.

The CHAIRMAN. Do you get out many saw logs?

Mr. MARTIN. Yes.

The CHAIRMAN. What character of land do you cut over?

Mr. MARTIN. Largely swamp land.

The CHAIRMAN. Land where you buy the stumpage?

Mr. MARTIN. Yes, from contractors. About 50 per cent is stumpage we buy.

The CHAIRMAN. You contract and cut more or less of it?

Mr. MARTIN. We have contractors take it out for us. We buy the timber and have them take it out.

The CHAIRMAN. You said about 50 per cent. Where do you get the other 50 per cent.

Mr. MARTIN. Buy it from the settlers.

The CHAIRMAN. You do not actually cut any yourself?

Mr. MARTIN. No, sir.

The CHAIRMAN. You are familiar with the forests, however, I should judge?

Mr. MARTIN. No, sir; not in particular. I have never been out in them at all. We have men for that work, cruisers.

The CHAIRMAN. You buy from the estimates given by your cruisers?

Mr. MARTIN. Yes, sir.

The CHAIRMAN. Nearly all the companies do that, don't they?

Mr. MARTIN. I don't know; I think the most of them.

The CHAIRMAN. In the end they rely on the judgment of the cruiser as to the amount of forest?

Mr. MARTIN. Yes, sir.

The CHAIRMAN. How much pulp wood do you handle in the course of a year?

Mr. MARTIN. We handled 43,000 cords last year.

The CHAIRMAN. Who did that go to?

Mr. MARTIN. Pulp wood company, Appleton, Wis. A little over 15,000 over the contract. We sent the pulp wood to them and they paid the freight on it subject to this year's market.

The CHAIRMAN. You have sent down about 15,000 cords more than your contract called for?

Mr. MARTIN. Yes, sir.

The CHAIRMAN. Is a large portion of your business the getting out of pulp wood?

Mr. MARTIN. And ties.

The CHAIRMAN. What do you cut ties from?

Mr. MARTIN. Cedar and tamarack and pine.

The CHAIRMAN. What kind of pine do you use for ties?

Mr. MARTIN. White pine.

The CHAIRMAN. Do they cut white pine into ties?

Mr. MARTIN. Where it is mixed in—sometimes a small tree mixed with cedar—we make ties of it.

The CHAIRMAN. I thought they treated white pine like diamonds; when they found a piece they locked it up in a safe.

Mr. MARTIN. We made quite a number of ties out of pine last year. Pine is usually too large, but where it is small we use it for ties.

The CHAIRMAN. You do not get out many poles?

Mr. MARTIN. Not many last year.

The CHAIRMAN. Does most of the pulp wood that goes to Wisconsin come from you gentlemen that have been here?

Mr. MARTIN. I think so. The Cloquet people send a little wood out.

The CHAIRMAN. In Wisconsin the two pulp-wood companies there that supply the mills, Mr. Taylor and Mr. Ballou, seemed to be under the impression that most of their pulp wood came in connection with the cutting of poles.

Mr. MARTIN. Largely in ties, I think. There were very few poles manufactured here last year, none hardly.

The CHAIRMAN. This forest that you go over is the prevalent timber—cedar spruce or tamarack?
ber cedar or spruce or tamarack?

Mr. MARTIN. Tamarack and spruce.

The CHAIRMAN. You are aiming to cut ties from tamarack and cedar?

Mr. MARTIN. Yes, sir.

The CHAIRMAN. What proportion of it would be cedar?

Mr. MARTIN. I should judge a third of the timber would be cedar. The CHAIRMAN. What proportion would be tamarack?

Mr. MARTIN. About half is tamarack. The other half would be divided between cedar and spruce.

The CHAIRMAN. You use the tamarack and cedar for ties mainly?

Mr. MARTIN. Yes.

The CHAIRMAN. Do you cut any posts?

Mr. MARTIN. Yes; but that is incidental.

The CHAIRMAN. You do not cut many poles?

Mr. MARTIN. None at all.

The CHAIRMAN. If you get a tree that is suitable for a pole you usually cut it into ties?

Mr. MARTIN. Yes, sir.

The CHAIRMAN. If there is any left, you make posts?

Mr. MARTIN. Yes.

The CHAIRMAN. Do you take the forest clean?

Mr. MARTIN. Yes.

The CHAIRMAN. And the spruce you cut into pulp wood?

Mr. MARTIN. Yes; there is some spruce we put into saw logs when they are very large.

The CHAIRMAN. Of course, in going through the forest you find some pine and other stuff that you cut into saw logs?

Mr. MARTIN. Yes, sir; generally.

The CHAIRMAN. What other tree is there that grows large besides the spruce and pine and tamarack and cedar?

Mr. MARTIN. There is large birch here and basswood.

The CHAIRMAN. How large does the birch grow here?

Mr. MARTIN. Some of it grows 8 and 10 inches.

The CHAIRMAN. Nothing over probably about a foot in the way of birch?

Mr. MARTIN. I have never seen any.

The CHAIRMAN. Does the basswood grow large?

Mr. MARTIN. Yes, sir.

The CHAIRMAN. Is that a long-lived tree up here?

Mr. MARTIN. The most of it we have cut has been good. We cut considerable last year in the neighborhood of Deer River.

The CHAIRMAN. What do you do with the balsam when you cut over the forest?

Mr. MARTIN. We have never cut any balsam. I presume there has been a little put in with the spruce, but not much.

The CHAIRMAN. Do you find any balsam where you cut over?

Mr. MARTIN. I don't know.

The CHAIRMAN. You do not handle it unless a little gets mixed in with the spruce?

Mr. MARTIN. No; there is no contract with balsam at all.

The CHAIRMAN. Do your contracts allow you to put any balsam in the pulp wood?

Mr. MARTIN. No, sir.

The CHAIRMAN. What do you do with the poplar?

Mr. MARTIN. Very little in our cutting. We do not cut it at all.

The CHAIRMAN. How small down do you cut birch?

Mr. MARTIN. We do not handle birch; sometimes make saw logs of it; probably 10 inches. We do not handle it in cord wood at all.

The CHAIRMAN. Have you any judgment as to the quantity of forest left here?

Mr. MARTIN. Only just hearsay, such as the other witnesses have given.

The CHAIRMAN. Are you acquainted with any firms here that deal in Canadian timber?

Mr. MARTIN. I do not know of any.

The CHAIRMAN. Where do you get your wood mostly?

Mr. MARTIN. St. Louis County.

The CHAIRMAN. What portion of it?

Mr. MARTIN. The northern portion along the railroad.

The CHAIRMAN. North from here?

Mr. MARTIN. On the Missaba Northern and on the Iron Range.

STATEMENT OF LUTHER B. ARNOLD, OF DULUTH.

(Sworn and examined by the chairman.)

The CHAIRMAN. Give us your full name.

Mr. ARNOLD. Luther B. Arnold.

The CHAIRMAN. What is your business?

Mr. ARNOLD. Assistant land commissioner of the Duluth and Iron Range Railroad Company.

The CHAIRMAN. How much land does the Duluth and Iron Range Railroad Company own?

Mr. ARNOLD. The original land grant was 606,000 acres—a few acres over that, possibly.

The CHAIRMAN. Located where?

Mr. ARNOLD. Lake, Cook, and St. Louis counties, the three north-eastern counties. It now has probably a little over 500,000 acres.

The CHAIRMAN. What is the character of that land generally?

Mr. ARNOLD. The character of the land varies as much as the character of the counties, for it is scattered all through the three counties. We probably have in St. Louis County 100,000 acres of land that might be considered at the present time as suitable for agricultural purposes after the timber has been removed.

The CHAIRMAN. That would be out of how much in St. Louis County?

Mr. ARNOLD. I could not say exactly. Our grant is in St. Louis County, and the larger portion of our land is located in St. Louis County.

The CHAIRMAN. What percentage of the total amount in St. Louis County do you think belonging to your company would be suitable for agricultural purposes?

Mr. ARNOLD. I can not state exactly what our acreage is here, and without that I could not say. I will say that there is 100,000 acres at present that is suitable probably for agricultural purposes without any large systematic drainage work.

The CHAIRMAN. What percentage of the land in St. Louis County, regardless of the ownership, do you think would be suitable for agricultural purposes?

Mr. ARNOLD. I should say approximately 70 per cent.

The CHAIRMAN. Then you have a lot of land that is now too low, I take it, as it stands?

Mr. ARNOLD. We have a lot of land that is too low. In fact, to fill our land grant we selected the bulk of the area of some of the largest swamps in the southwestern part of the county with a view of working out some plan for adapting that land to agricultural purposes.

The CHAIRMAN. That is naturally rather rich soil there, is it not?

Mr. ARNOLD. It is a peaty substance—decomposed vegetable matter.

The CHAIRMAN. Is that what they call muskeg land?

Mr. ARNOLD. Well, the term muskeg is applied by different people to different classes of land, so that it would cover everything. In some cases this swamp has reached a stage of decomposition where with a little working up of the top and the use of some fertilizer to supply chemical deficiencies it will make excellent agricultural land at once, with sufficient drainage to carry off the surface water, and in other cases the swamp has not reached that stage of decomposition. You can find places where ditches have been dug along railroads in this county where you find different strata of moss still in a pretty good state of preservation. I have seen growths of moss, stumps, and roots, one on top of the other, showing where it has been fire killed and new growth come in, and probably in a space of 4 or 5 feet you will find these three different strata.

The CHAIRMAN. Four or 5 feet in depth?

Mr. ARNOLD. Yes; you will find these three different strata and very little decomposition until you get down to the bottom.

The CHAIRMAN. Have you ever estimated as to how long it was between those fires?

Mr. ARNOLD. I never have.

The CHAIRMAN. A considerable period of time, probably; but still that would indicate that fires had swept over that country?

Mr. ARNOLD. Yes, sir.

The CHAIRMAN. Killing off the timber growth, if there was any, as well as the moss?

Mr. ARNOLD. There was a tremendous fire that swept over this country a good many years ago, between seventy-five and one hundred years ago, that is known as the hundred-mile fire. Some Indian tradition of Sioux coming in here and getting even with their friends, the Chippewas, and driving them north. You can see marks of that fire clear through to the Canadian boundary, the cruisers tell us.

The CHAIRMAN. We heard of that fire up in Koochiching County, but we found trees right on top of it that were over a hundred years old.

Mr. ARNOLD. Yes, sir.

The CHAIRMAN. I suppose Indian traditions are not likely to be very reliable as to dates?

Mr. ARNOLD. No.

The CHAIRMAN. Are there any schemes on foot here for the drainage of this territory?

Mr. ARNOLD. The State has been carrying on drainage for about twelve or fifteen years, and has at last reached this portion of the country. Last year it constructed some small drainage ditches in the southwestern part of St. Louis County in township 52, range 21, in a large swamp known as the Wawina swamp, extending from the tributaries of the St. Louis River system to the tributaries of the Mississippi.

The CHAIRMAN. That it is across the divide?

Mr. ARNOLD. It is the top of the divide.

The CHAIRMAN. Is that a great swamp?

Mr. ARNOLD. It is a large swamp.

The CHAIRMAN. It flows both ways?

Mr. ARNOLD. Drains both ways. Little runs extend up into it from both systems, the St. Louis system going into the lake and the Mississippi into the Gulf of Mexico. This year the State has let contracts for three ditching systems and known as the State ditches 53, 54, and 55, one of them being in this Wawina swamp and being an addition to and continuation of the work begun a year ago. Another one being built is what is called the meadow land district between township 54, ranges 18 and 19, another being built draining into the White Face River in townships 54 and 55, range 17. These ditches will extend in all with their laterals, about 40 miles. The contracts were let with a provision that the waste material, stumps, etc., should be thrown on one side of the ditch and the material suitable for highway building should be piled in a waste pile on the other side of the ditch and leveled off in such a way as to make a public highway. St. Louis County appropriated a sufficient amount to clear the right of way of stumps and timber for this highway work.

Mr. RYAN. Do you recollect how large an appropriation that was?

Mr. ARNOLD. The approximate cost of the three ditches was \$15,000.

The CHAIRMAN. Was any of the cost of that assessed against the land?

Mr. ARNOLD. I think it is all assessed against the land.

The CHAIRMAN. The State does not pay it out of its general treasury?

Mr. ARNOLD. No. The State fathers the work, makes the surveys, carries on the legal work, and it is paid for, I think, by bonds issued by the county—I am not exactly clear on that law—and assessed back against the land.

The CHAIRMAN. In most of the States they have what are organized as drainage districts which levy special assessments against the property, payable in installments and against which they issue bonds.

Mr. ARNOLD. They have several methods of building ditches. These ditches are what are called State ditches and are built out of the State fund, the fund being simply advanced for the building of the ditch, and, I think, covered by bonds and assessed against the land and paid back in a period of twenty years, the first assessment being payable five years after the completion of the ditch.

The CHAIRMAN. You would know whether your land had been assessed for these ditches, wouldn't you?

Mr. ARNOLD. We have agreed to the assessments, we have participated in them, and I know it is assessed. What I am getting at is simply the method of making the first payment. I think bonds are issued by the county and retired by these assessments later.

The CHAIRMAN. That delays the first payment on the theory that the land itself will be able to produce the money with which to pay it?

Mr. ARNOLD. Yes, sir. This must be carried a period of five years after the completion of the ditches before any assessment or any money is returned to the fund.

The CHAIRMAN. Do you know how large these ditches are?

Mr. ARNOLD. The main ditches are 12 feet at the bottom and approximately 8 feet deep.

The CHAIRMAN. What is the bottom, clay?

Mr. ARNOLD. Whatever the depth finds. Not always clay. Sometimes still in the muck.

The CHAIRMAN. How deep does the muck usually run?

Mr. ARNOLD. From 3 to 5 feet generally. We have sounded, I think, 23 feet before reaching subsoil in some places in some large swamps.

The CHAIRMAN. You will have to have that pretty dry for a big team of Norman horses to haul a load over it, won't you?

Mr. ARNOLD. Yes.

The CHAIRMAN. You figure that this land when drained will be fit for agricultural purposes?

Mr. ARNOLD. We believe that it will.

The CHAIRMAN. With the aid of chemicals probably that the peat is deficient in?

Mr. ARNOLD. Yes.

The CHAIRMAN. Principally used, I take it, for the present for raising vegetables?

Mr. ARNOLD. These lands at first will probably be put into hay, red top, perhaps white clover, and worked into timothy and red clover later, as it becomes drier.

The CHAIRMAN. We saw timothy growing where the roads had been made up at International Falls as luxuriously as you can find it almost any place.

Mr. ARNOLD. You will find it impossible in the summer to travel along any old logging road in this part of the country and not find it lined with timothy hay, and in some cases with clover. from the seed dropped from baled hay that has been hauled along there. This is as good a clover country as timothy, but timothy has been the class of hay that has been brought into the camps principally.

The CHAIRMAN. When you have this sowed down with pasture or hay grass, what do you think you will stock the farms with?

Mr. ARNOLD. This is strictly a dairy country. Of course, the hay crop is one of the most valuable crops that can be raised in this country at the present time. I have sold timothy hay on my farm 40 miles northwest of here in the last month at \$14 a ton in the stack, the man to do his own hauling.

The CHAIRMAN. That is for use in the lumber camps mainly. We have been paying a cent a pound for timothy hay in Chicago for the last year.

Mr. ARNOLD. The timothy hay this winter will probably sell at \$25 a ton in Hibbing and in the range towns. This hay that I sold at \$14 a ton was sold as an accommodation.

The CHAIRMAN. When this land is drained off in this way, you think about 70 per cent of it may be used for agricultural purposes?

Mr. ARNOLD. In this county.

The CHAIRMAN. Is the upland fit for agricultural purposes?

Mr. ARNOLD. A great deal of the upland is very fine sandy loam that raises splendid potatoes and root crops, and I have seen in some of the finished settlements as fine grain as I have ever seen anywhere on the Dakota prairies, but in small patches.

The CHAIRMAN. What kind of grain?

Mr. ARNOLD. Winter rye, wheat, oats, and barley.

The CHAIRMAN. When you said that you had about 100,000 acres in this county fit for agricultural purposes, did you include the land that would be affected by this drainage?

Mr. ARNOLD. I mean the land that can be used before these drainage systems are built. That is scattered land.

The CHAIRMAN. Is practically all of your land fit for agricultural purposes if it can be drained, in your opinion?

Mr. ARNOLD. I think that pretty close to 50 per cent of our land in this county will not be agricultural land.

The CHAIRMAN. What character of land is that?

Mr. ARNOLD. It is land that has been timbered with spruce, tamarack and similar classes of timber and is very stony, very rocky.

The CHAIRMAN. Did you get that under the swamp-land act?

Mr. ARNOLD. You will find in some parts of the county spruce and tamarack swamps in which the only soil to be found is moss, and that may be several feet deep, and the timber based on beds of rock that I do not believe you could lead a horse over without breaking its legs, and could hardly travel over yourself after the moss is off. When that timber is taken off it leaves the ground bare and the moss dries in the dry season, and if a fire gets in there it will burn large tracts of country that are simply masses of bowlders.

The CHAIRMAN. That land is valuable, if valuable at all, mainly for the reproduction of timber?

Mr. ARNOLD. I think so.

The CHAIRMAN. What character of timber is on it now? Has it been cut over?

Mr. ARNOLD. There is much land that has been cut over and much that has not. Land that has been cut over we have made no close examination of as to the bottom of the soil. I presume there is very much land that is bedded with rocks and bowlders in that way.

The CHAIRMAN. Have you a good deal of spruce forest?

Mr. ARNOLD. We have a great deal of spruce.

The CHAIRMAN. Tamarack and balsam?

Mr. ARNOLD. Considerable tamarack. I do not know about the balsam. We do not pay much attention to that.

The CHAIRMAN. Do you know about how spruce forests run, generally, in this county, what proportion of the forest is spruce?

Mr. ARNOLD. I think in our lands, that as we consider or designate spruce, it is largely in bodies, principally of spruce timber swamps, of sometimes several thousand acres in extent, very heavily timbered with spruce. Generally I think the top soil or muck in which that spruce grows is not very deep, probably not more than 18 inches to 3 feet.

The CHAIRMAN. Then it would come down to what, rock or clay?

Mr. ARNOLD. The bottom might be rock or it might be clay subsoil. That rock is bedded on clay.

The CHAIRMAN. In the pure muskeg, is that where the peat is the deepest?

Mr. ARNOLD. Yes; I think so from my experience, and that is usually not timbered or timbered very sparsely.

The CHAIRMAN. Or timbered with very low stuff, you mean?

Mr. ARNOLD. Well, yes; sometimes it is open land covered with moss on top.

The CHAIRMAN. We have seen a good deal of muskeg where the trees would appear to be very old and very small, and very often covered with green moss.

Mr. ARNOLD. Yes.

The CHAIRMAN. Do you have a good deal of land in connection with the iron mines?

Mr. ARNOLD. In what way?

The CHAIRMAN. Does the railroad company own a good deal of land where the iron mines are?

Mr. ARNOLD. Very little on the range. I may say, to begin with, that is a higher formation and there is comparatively little swamp land immediately on the Mesaba range.

The CHAIRMAN. Who owns the land up there?

Mr. ARNOLD. The land was principally pine land, high ridges and hills, and was owned by lumbering companies and private individuals. The late Governor John S. Pillsbury owned a great deal of fine pine land through that district which furnished a large revenue, and is supposed to be worthless after that, and then developed iron mines that were beyond all expectations of the lumbermen.

The CHAIRMAN. Has the forest been mainly cut off that Iron Mine range?

Mr. ARNOLD. Yes, mainly.

The CHAIRMAN. What is there there now?

Mr. ARNOLD. Stumps and rocks.

The CHAIRMAN. Any second growth?

Mr. ARNOLD. Very little, for I think much of that territory has been burned over where there was any prospect of iron mines, in the exploration work.

The CHAIRMAN. Is that land worth anything—the surface of it—except for the growth of trees?

Mr. ARNOLD. There are some excellent truck farms and dairy farms in the neighborhood of the mining towns on that character of land. I had the dean of the agricultural college, Mr. A. W. Randall, and Prof. T. L. Hicker, a dairyman who stands at the top in the United States, and Prof. Harry Snyder, a consulting agriculturist, up there in August, and they were surprised at the farms that were developed in a small way close to the towns.

The CHAIRMAN. Was it their opinion, and is it yours, that that land may be made available for farming purposes?

Mr. ARNOLD. Most certainly so. The work already done has proven that.

The CHAIRMAN. It would be more profitable then to farm it than it would be to raise forest on it?

Mr. ARNOLD. I think it would, that character of land, yes.

The CHAIRMAN. That would be the land up in the Iron Range that is high land, of course?

Mr. ARNOLD. Yes. Now I must modify that statement. There is considerable land scattered along the range that is perhaps very stony and that would not be practicable to use for agricultural purposes on account of the rocks.

The CHAIRMAN. I mean, take the range itself, the general land up there now, would it be more profitable to use that portion that can be used for agricultural purposes for farming or endeavor to conserve the forest over the entire area.

Mr. ARNOLD. To use it for farming, by all means.

The CHAIRMAN. It is practically impossible, I suppose, to put a farm on this forty and that eighty and the next hundred and sixty, and so forth, and to have forest grown in around between because it is sure to get burned?

Mr. ARNOLD. I can point to you one instance of a farmer who has 160 acres which was supposed to be mineral land, was taken for that, homesteaded, I think, and this man's claim was contested. He was a butcher by trade in one of the mining towns, and before he perfected his title and won his contest he lost his butcher business and was \$3,000 in debt. He had nothing left but his claim. He had a little by-product timber on it—that is to say, spruce and tamarack and cedar and some hard-wood timber. He went out to his farm and built a little log shack, probably 10 by 20 feet, took his wife and went to work clearing his land, selling a little by-product timber in the town during the winter and getting out a few ties and clearing his land in the summer. I think that was nine years ago. To-day he has paid off his \$3,000 debt, he has put up a house this summer that must have cost \$2,000, he has as nice a barn as you would expect to see in the eastern States and considers his farm worth \$10,000 as an agricultural proposition, and I think has considerable money in the bank. I think that pays.

The CHAIRMAN. We would be very glad to disseminate that advertisement, because if you can show that all over the country you will soon fill up this region up here. Where is that?

Mr. ARNOLD. It is 4 miles from some of our biggest mines on the range. That man has been offered \$125 a month to go back to work as a butcher. He says he can not afford to. When you consider that in 1906 there was shipped into Duluth for consumption in Duluth and distribution in the range towns tributary to Duluth, in St. Louis County, over 10,000 loads of farm product which might have been raised right around in this country, and that does not include the hay part of it and stuff that is used in the lumber camps for horses, I think we have got an opportunity for a good many farmers, and we have got the land that both by practical demonstration and use and by analysis of our chemists at the university we know will produce the stuff.

The CHAIRMAN. You have the largest iron ore mines in the world, of course?

Mr. ARNOLD. Yes.

The CHAIRMAN. What is the population probably that is engaged in that business and tributary to that business?

Mr. ARNOLD. I can not give anything better than a rough guess on that, but you can get statistics. I would venture to say that in the average year—the forces are reduced very much at the present time and have been all summer—I should say in the average year we must have close to a thousand people on the Mesaba and Vermilion ranges.

The CHAIRMAN. That is, you mean the entire population?

Mr. ARNOLD. The population is there simply on account of the mines.

The CHAIRMAN. You do not mean the number of men working, but the entire population?

Mr. ARNOLD. The entire population would be more than that. Men engaged in mining, storekeepers, and all classes of men that are there for the support of the mining element and the miners.

The CHAIRMAN. Do you include the families?

Mr. ARNOLD. I do not think I will have to include the families.

The CHAIRMAN. Of course that means a very large consumption of the ordinary products necessary to sustain and carry on living. In that view of the case, do you think this land around here is likely to be cleared as rapidly as practicable of the forest and used for agricultural purposes?

Mr. ARNOLD. The settlement and clearing of agricultural lands in the country tributary to the head of the lakes, including Wisconsin, is growing more rapidly now than it ever has, to the best of my knowledge, in any timbered district in North America.

The CHAIRMAN. Then the forest is destined to disappear from this part of the country?

Mr. ARNOLD. I would not say that, because there is a large quantity of land that is, I believe, destined to be used for forest purposes, and I think that those people who are now setting and clearing land will for many years maintain a part of their land in timber.

The CHAIRMAN. You say a large part of the land is destined to be used for forestry purposes. Do you mean the land which practically has no soil or subsoil, or is that rocky bottom?

Mr. ARNOLD. Yes; and in some cases it is a soil that is too light for agricultural purposes.

The CHAIRMAN. Too light or too rocky, or both?

Mr. ARNOLD. Too rocky and too low.

The CHAIRMAN. That, of course, can only be used for forestry purposes with proper protection and every care?

Mr. ARNOLD. That land is reforesting itself if it has the protection from fires.

The CHAIRMAN. Yes; but it has not the protection from fires. Assuming that it takes a forest thirty to a hundred years to become valuable, is there any land here without better protection than now is given with settlers all around it that will be free from fire for twenty-five years in all probability?

Mr. ARNOLD. Not without better protection than it is receiving at present. But the State fire warden is doing the best he can with the funds at his command at the present time.

The CHAIRMAN. He posts notices everywhere, doesn't he?

Mr. ARNOLD. He posts up notices everywhere, and he is very vigilant. When you consider the people that go into the woods and throw everything everywhere in the dry season—

The CHAIRMAN. And the number of railroads which are constantly increasing in mileage.

Mr. ARNOLD. Yes; they are increasing in mileage, but I think you will find that in this county, at least, the right of ways of the railroads are kept as clean as you see them anywhere in the United States and very little fire gets away from at least the ore roads.

Mr. RYAN. That is not true, generally speaking, of railroads, though.

Mr. ARNOLD. It is not true, generally speaking, but in St. Louis county the railroads have been very careful about that.

Mr. RYAN. Some one has suggested that the railroads along their right of way clear back a certain portion off from the right of way and plant that to garden truck and things of that kind all the way along as a protection from forest fires.

Mr. ARNOLD. The two ore roads here have to a large extent protected their right of ways. They have distributed at times clover seed, and it is coming in a little, but slowly, and you will find that they mow the grass and they clean up their right of ways and clean the rubbish up, and their right of ways are kept very clean indeed. Of course, the fire will catch outside of the right of way in dry seasons. I do not know how careful the lumber companies are in that respect, but the bulk of fires catch from careless people in the woods.

The CHAIRMAN. I think two-thirds of the fires start from the railroads.

Mr. RYAN. People tell us that it is the hunters, but I think as the chairman does.

Mr. ARNOLD. As soon as the fire starts you will find on Mr. McGonigle's road or the Duluth and Iron Range road, the next train notifies the section foreman on the road there.

Mr. RYAN. We have never seen anybody out doing anything.

Mr. ARNOLD. Have you seen any fires along the road?

The CHAIRMAN. We saw some fires on the Missaba road, and nobody paying any attention to them, but on the whole very little fire along that road.

Mr. ARNOLD. You must realize that on every Sunday the trains are loaded with hunters, possibly smoking cigarettes and one thing and another, and they build little fires.

The CHAIRMAN. It is very certain, I take it, if the forests are to be conserved in any way—reproduced—it is absolutely essential that there be furnished better fire protection than there has been, by either the National Government or the State government.

Mr. ARNOLD. I think so.

The CHAIRMAN. Where you have the country fairly well settled up.

Mr. ARNOLD. I think if the State would furnish as much money for the protection of the forests from fire as it does for the protection of game, it would be a good thing, and there is no money in the game for the State.

The CHAIRMAN. How soon do you imagine the spruce forests will largely disappear here?

Mr. ARNOLD. I could not make any estimate whatever on that, but I will say this, that land that has been cut over by such people as the gentlemen who testified this morning has spruce on it enough left to support a settler and furnish him considerable funds. They cut their spruce through the contractors. The contractor pays his laborer or cutter by the cord. That man cuts only the stuff that is fit to cut and is going to furnish him a cord that can be cut quickly. If two or three trees are standing off in a little bunch he does not take those.

The CHAIRMAN. We have not seen any of that character of cutting either in Wisconsin or Minnesota.

Mr. ARNOLD. I have sold to the settlers land that the original timber was sold from to Mr. Martin not over five years ago; I have sold it to the settlers afterwards and they have cut more off, and now they

are bringing their friends in and buying the land and settling on it, and still finding enough to furnish quite a little spruce.

The CHAIRMAN. Isn't that mainly because a few years ago pulp wood was not considered of much value?

Mr. ARNOLD. Five years ago it was considered pretty good value. We got 75 cents a cord stumpage for that pulp wood that we sold at that time.

The CHAIRMAN. The demand for pulp wood up here has very greatly increased in the last few years. Before ten years ago—so the testimony shows here—they paid no attention to the pulp wood at all; it was not considered valuable.

Mr. ARNOLD. That is very true.

The CHAIRMAN. Of course, they left that on the ground.

Mr. ARNOLD. But I do not believe that the stand of pulp wood in the timber portions of Minnesota north of a line directly northwest from Duluth has much more than been scratched.

The CHAIRMAN. Do you base that judgment upon any facts or just upon your general knowledge?

Mr. ARNOLD. On my general knowledge of the operations that have been carried on and the amount that has been shipped out and my knowledge of the various localities where there are bodies of spruce that I have considered the best bodies of spruce. I do not believe that the best bodies of spruce in this northern country have been reached yet.

The CHAIRMAN. You heard Mr. Martin testify that he thought there was enough spruce here to last for twenty-five years. Mr. Curry testified that there was enough to last for possibly forty years. How long do you think the spruce forests of Minnesota will last at the present rate of consumption?

Mr. ARNOLD. I have not made any estimate. Iron ore has been estimated to last so many years, and the rate of consumption has increased so that they have been cutting that down. Then, again, their explorations show up so much more that they have to increase it. You will find the same thing with this timber. It is different from the iron ore, of course, from the fact that it is all on the surface; but this country has not been explored. The land in the northern part of these counties has been explored for pine and the pine estimated, but the spruce was considered worth nothing.

Mr. RYAN. Mr. Curry estimated the standing timber for pulp wood purposes in Minnesota here now to be about 40,000,000 cords.

Mr. ARNOLD. I think Mr. Curry is a good judge. He is the practical timber man of that firm.

The CHAIRMAN. Don't you think that estimate is unreasonably low as to the quantity of spruce wood up here?

Mr. ARNOLD. Forty million cords is a good deal of pulp wood.

The CHAIRMAN. They based that upon the idea that it was forty years' consumption of whatever the average consumption was now.

Mr. ARNOLD. Yes.

The CHAIRMAN. About which he was not absolutely sure.

Mr. ARNOLD. I would say this, that in estimating spruce or any cord-wood timber I find that the cut will ordinarily overrun very considerably the estimate of a competent timber estimator.

The CHAIRMAN. How is the spruce forest up in Lake County, pretty much the same as it is here?

Mr. ARNOLD. I think that there are some of the best bodies of spruce in this part of the country in Lake County.

The CHAIRMAN. Is there any mixed timber up in Lake County?

Mr. ARNOLD. What do you mean by mixed timber?

The CHAIRMAN. Any large wood, generally mixed pine and spruce and birch.

Mr. ARNOLD. I think generally on the upland, excepting the heaviest growth of pine timber you will find considerable birch. Along the rivers you will generally find more or less hard wood. Some basswood, some oak and soft maple.

The CHAIRMAN. Soft maple or hard maple?

Mr. ARNOLD. It is soft maple, I think.

The CHAIRMAN. If we should go up into Lake County, could we see a fair sample of the upland Minnesota forest?

Mr. ARNOLD. No, not of the hard-wood land, I think.

The CHAIRMAN. What would we find up in Lake County?

Mr. ARNOLD. I think you will find that the timber is more of pine and spruce and that character of timber.

The CHAIRMAN. If we go up in Lake County, what kind of forests will we see?

Mr. ARNOLD. If you go up in Lake County and I go with you, I am going to see it for the first time myself.

The CHAIRMAN. Is there anyone here familiar with the Canadian forests that you know of?

Mr. ARNOLD. There should be some cruisers here.

The CHAIRMAN. Is there anyone here who operates up there, cutting lumber?

Mr. ARNOLD. No, I do not think there is.

The CHAIRMAN. Anyone here who owns any of that land up there that you know of?

Mr. ARNOLD. I do not know of anyone in town. There is an operator up on the Duluth and Iron Range road, Mr. Laird, who told me that they had a large tract of timber on Hunters Island, which is north of St. Louis in Lake County in the maze of islands at the head of the Rainier and Pigeon rivers.

The CHAIRMAN. How close do the heads of the Rainier and Pigeon rivers come together?

Mr. ARNOLD. I could not say. I know that there is a mingling of rocks and rivers in there. It is hard to tell where one ends and the other commences.

The CHAIRMAN. How far west does the Pigeon River start, do you know?

Mr. ARNOLD. I could not tell you.

The CHAIRMAN. I was looking on the Minnesota map, and there seems to be a continuous body of lakes without a break on the map clear across to Lake Superior from Rainy Lake.

Mr. ARNOLD. Rainy River heads, at least to a certain extent, in Lake Vermilion, about three-quarters of the way north, in St. Louis County. Lake Vermilion waters run north to the Rainy River.

The CHAIRMAN. How large a lake is Lake Vermilion?

Mr. ARNOLD. It is 20 or 25 miles long. It has a great many islands and a very large shore frontage.

The CHAIRMAN. Do you know of any undeveloped water powers up here?

Mr. ARNOLD. There is an undeveloped water power at Linden, at the outlet of Fall Lake. That is a few miles east of Ely, which is the head of the Duluth and Iron Range road, the most northeastern development of the Vermilion.

The CHAIRMAN. Is there a considerable fall there?

Mr. ARNOLD. I think there is quite a water power there. I know that one of the owners of the road has talked a great deal of developing it for the purpose of furnishing electricity to run the mines.

The CHAIRMAN. Has anyone up here adopted the methods of forest conservation yet?

Mr. ARNOLD. I don't think so. The State has set aside a forest reservation northeast of Lake Vermilion.

The CHAIRMAN. Is that the forest reservation that Congress created a few years ago?

Mr. ARNOLD. I judge not.

The CHAIRMAN. Do you know where that is?

Mr. ARNOLD. Wasn't that in some of the Indian reservations?

The CHAIRMAN. It may have been in connection possibly with the Leech Lake Indian Reservation, but part of it was outside of the Indian reservation, I think. I guess it was near Lake Winnebigoishish.

Mr. ARNOLD. I think so, or in the Cass Lake district.

The CHAIRMAN. How much of a forest reservation has the State set aside?

Mr. ARNOLD. My recollection is that they bought in the neighborhood of 20,000 acres in some four townships. It is more or less scattered.

The CHAIRMAN. Some that they purchased?

Mr. ARNOLD. Yes; I think so. Cut over lands.

The CHAIRMAN. Has your company considered the adoption of forest conservation and forest reproduction on any of its land?

Mr. ARNOLD. That is being considered. I think it will become a necessity.

The CHAIRMAN. Do you think that if the State should arrange for adequate fire protection and for a proper system of taxation on growing timber the owners of much of this land might be induced to adopt the methods of forest reproduction?

Mr. ARNOLD. I think so. I think that one of the largest owners of timber land, by which I mean both the timber and the land, the Weyerhaeusers, would be very much interested in that.

The CHAIRMAN. What is land worth here?

Mr. ARNOLD. In what way?

The CHAIRMAN. The different characters of land for different purposes?

Mr. ARNOLD. Land sells to the settlers at prices ranging from \$5 to \$15 an acre. At least those are the prices that we have been getting for our lands. In the case of \$15 an acre land we have built wagon roads from the railroad station to every settler in the settlement and have done a great deal of public work of that kind. In one locality, our meadow-land clearing, we have built approximately 40 miles of wagon road in the last four years.

The CHAIRMAN. What do you mean by building wagon roads, clearing forests?

Mr. ARNOLD. Clearing the right of way, cutting the road, building culverts, and grading the road with a road grader. Where we cross a swamp that is so bad it has to be corduroyed—laying corduroy, digging ditches, covering it—we put the road in such condition that it will drain thoroughly and can be traveled over. Then we turn it over to the township government and let them take care of it.

The CHAIRMAN. Where you sell the land at \$5 an acre?

Mr. ARNOLD. That is land that is probably of not as good character, somewhat stony, and probably more or less of pine stumps, and takes more money to clear it. There is some little by-product timber on it that will furnish an income for the settler, but generally that character of land is sold to people who wish to start sheep farms, or something of that sort.

The CHAIRMAN. Is this land forested generally, or has the timber been mostly cut off?

Mr. ARNOLD. The bulk of the timber, of the merchantable timber, has been generally cut. By merchantable timber I mean pine, spruce, tamarack, and cedar.

The CHAIRMAN. You mean saw-log timber?

Mr. ARNOLD. Saw log, tie, pole, and pulp-wood timber. That is where there has been pulp wood in large quantities. The reason we sell that timber to loggers and jobbers instead of to the settler is that in selling to the settler, unless we get a sufficient payment down on the land, all of our land being sold on time to protect us for the value of the timber, the chances are very great that the settler will cut a good deal of that timber, dispose of it, and disappear. But in selling to the jobber we are sometimes able to sell him the timber, sell the land to the settler, and get the settler a contract from the jobber to clear the land.

The CHAIRMAN. Have you any judgment as to the effect on the spruce forest of the drainage of this land?

Mr. ARNOLD. I think it would be detrimental to any timber, and for that reason we are opposing the drainage of districts where there is a great quantity of timber.

The CHAIRMAN. Does not the forest grow better on the ground that is not so wet?

Mr. ARNOLD. I think that the lands which carry spruce of merchantable quality are sufficiently dry. That is, by absorption and evaporation, so that the timber is not injured.

The CHAIRMAN. Is not the best spruce on the higher ground?

Mr. ARNOLD. The best spruce is upland spruce. The tamarack is generally along the edge, the best tamarack along the edge of the swamp extending from a short distance on the upland down into the swamps. I think where you find large bodies of tamarack in the swamps you will generally find that there is an underlying strata of stone which furnishes drainage, bowlders such as I described some time ago.

The CHAIRMAN. Do you think this spruce, the better spruce, is not in the wettest swamps?

Mr. ARNOLD. No.

The CHAIRMAN. If you should drain that swamp off, is it not quite possible that removing so much cold water during the summer time you might benefit it rather than injure it?

Mr. ARNOLD. Probably; but I would have to wait that hundred years that you were telling of to realize the benefit.

The CHAIRMAN. Perhaps it would grow much more rapidly when it was dry. That has not yet been determined as to the effect of it.

Mr. ARNOLD. It has not been determined. I say it has not been determined. I think you will find, by applying to Prof. S. B. Green, at the agricultural department of the University of Minnesota, that you can get some very valuable statistics on the growth of timber in northern Minnesota, and especially in St. Louis County. I know Professor Green has come up here for a number of years, carrying on investigations of that character, and I know that he has statistics of some of the classes of timber, and, I think, on spruce as well as pine and tamarack.

The CHAIRMAN. He is a well-known authority on Minnesota forests and forestry generally, I know that.

Mr. ARNOLD. Yes.

The CHAIRMAN. Have you been made familiar with the inquiry that the Bureau of Corporations is making to ascertain the forestry resources—the Bureau of Corporations of the Department of Commerce and Labor?

Mr. ARNOLD. I think it was a representative of that bureau that came to my office a short time ago, and I believe he obtained estimates of practically all our timber, so far as we have them.

The CHAIRMAN. Have your timber holdings generally been cruised over?

Mr. ARNOLD. They have; but some of them not for ten or twelve years. The additional timber that is now taken for different purposes is becoming so great in the last few years that estimates of seven or eight years ago are not considered too reliable. For instance, three years ago railroads in making contracts for ties would specify that 65 per cent of a contractor's output must be 7 by 7, and 35 per cent could be smaller than that, down to 6 by 6. A year ago last winter various railroads came into the Duluth market and made contracts for ties down to 5 by 5 as a standard, offering 60 cents per tie for such ties f. o. b. Duluth, unpeeled, the cost of peeling being about a cent or a cent and a half a tie.

The CHAIRMAN. How much would that be a cord?

Mr. ARNOLD. I could not say what that would amount to a cord, but I know that some of the lumber men figured that a double cord of spruce—that is, 256 cubic feet—will make a thousand feet of log timber in the larger spruce.

The CHAIRMAN. That is board measure?

Mr. ARNOLD. Yes.

The CHAIRMAN. How long are ties?

Mr. ARNOLD. Eight feet.

The CHAIRMAN. That is the size of a double cord?

Mr. ARNOLD. Yes.

The CHAIRMAN. That would be about \$8 a cord. Are you familiar with the country where the Northwest Paper Company mill cuts its pulp wood?

Mr. ARNOLD. Quite so from the report of my cruisers. Not from personal knowledge.

The CHAIRMAN. Is that very similar to the general description you have been giving of your land?

Mr. ARNOLD. Yes, I think it is.

The CHAIRMAN. Do you own land over there, too?

Mr. ARNOLD. We own a good deal through there. The Northwest Paper Company has bought pulp wood of us at times. I think that they buy a great part of their supply from settlers.

The CHAIRMAN. We are going over to one of their lumber camps. I do not know whether that is simply a saw-log camp or a pulp-wood camp or whether it is both.

Mr. ARNOLD. I think that is a saw-log camp, although the Cloquet Tie and Post Company has the by-product timber for all the Weyerhaeuser concerns and they have camps in there. They probably will take you to such camps as those.

OFFICE OF THE NORTHERN LUMBER COMPANY,
Cloquet, Minn., October 20, 1908—4 p. m.

**STATEMENT OF RUDOLPH M. WEYERHAEUSER, OF CLOQUET,
MINN.**

(Sworn and examined by the chairman.)

The CHAIRMAN. This is young Mr. Weyerhaeuser, is it not?

Mr. WEYERHAEUSER. Yes, one of them. There are four of us.

The CHAIRMAN. Which is the youngest?

Mr. WEYERHAEUSER. I have one younger brother and two older brothers.

The CHAIRMAN. I have been told everywhere that these young Weyerhaeusers know more about forests than anybody else.

Mr. WEYERHAEUSER. You will find a good deal of jollying going on. Shall I point out the Cloquet holdings in a general way upon the map?

The CHAIRMAN. Yes.

Mr. WEYERHAEUSER (pointing to the map). Cloquet is right in here. The Cloquet River comes up through here. We have the Duluth and Northeastern, one of our logging roads, which starts at Cloquet and goes right up through this bunch of timber. These colored places on the map represent the holdings of the three companies here in town.

The CHAIRMAN. The three companies which you people are interested in?

Mr. WEYERHAEUSER. Yes, sir. This up here is on the Mesaba Range.

The CHAIRMAN. What county is this?

Mr. WEYERHAEUSER. This is all St. Louis County.

The CHAIRMAN. Including what is on the Mesaba Range?

Mr. WEYERHAEUSER. Yes, sir.

The CHAIRMAN. All of that marked on the map in that way is in St. Louis County?

Mr. WEYERHAEUSER. Yes, sir.

The CHAIRMAN. Do these companies own the land or just the timber on the land?

Mr. WEYERHAEUSER. Partially both.

The CHAIRMAN. That represents practically timber that you own?

Mr. WEYERHAEUSER. Timber holdings and largely cut-over lands.

The CHAIRMAN. What proportion would be cut over?

Mr. WEYERHAEUSER. I would say probably 50 per cent.

The CHAIRMAN. Do you know the extent of the three holdings in St. Louis County?

Mr. WEYERHAEUSER. No; I could not tell you.

The CHAIRMAN. How near do you think you could approximate it?

Mr. WEYERHAEUSER. The Northern Lumber Company possibly four hundred and fifty million, the Cloquet probably the same, the Johnson and Wentworth Company probably one hundred and eighty-five to two hundred.

The CHAIRMAN. About how many acres or townships?

Mr. WEYERHAEUSER. I could not tell you. I never figured up.

The CHAIRMAN. You have, then, quite a large percentage of the total area in St. Louis County, I judge.

Mr. WEYERHAEUSER. Well, it is a pretty big county.

The CHAIRMAN. Does it run clear to the north boundary line?

Mr. WEYERHAEUSER. Yes. As I understand, you were up in this country the other day.

The CHAIRMAN. Koochiching County is on the west of you at the north end?

Mr. WEYERHAEUSER. Koochiching is right here. Here is International Falls.

The CHAIRMAN. What is that green on the map at the north end?

Mr. WEYERHAEUSER. That represents holdings of a concern at Little Falls, and we had some holdings up there. And Grand Rapids some of our holdings of the Pine Tree Lumber Company.

Mr. RYAN. Is that one of your companies, the Pine Tree?

Mr. WEYERHAEUSER. We are interested in it.

Mr. RYAN. What does the light color indicate on the map, where the white is?

Mr. WEYERHAEUSER. That is vacant land, outside land. It does not indicate anything so far as we are concerned. I would say it was an unsurveyed town when that map was gotten up.

The CHAIRMAN. Is there any government land left around here?

Mr. WEYERHAEUSER. I imagine there is a small amount, but no timber land.

The CHAIRMAN. Is there any land owned by the State?

Mr. WEYERHAEUSER. Yes, sir.

The CHAIRMAN. Is that timber land largely or not?

Mr. WEYERHAEUSER. They own a great deal of timber, and a large amount down in this lower country has been cut. The upper country has hardly been explored a great deal as yet.

The CHAIRMAN. Is that timber in the upper end of the county accessible now?

Mr. WEYERHAEUSER. Were you at Koochiching the other night?

The CHAIRMAN. We were at International Falls.

Mr. WEYERHAEUSER. Then you came over what we call the Duluth, Rainy Lake and Virginia?

The CHAIRMAN. Yes; we came in the daytime.

Mr. WEYERHAEUSER. Here is Pelican Lake. You go down to Virginia and then the Missaba road brought you down to Duluth?

The CHAIRMAN. Yes. Most of that territory at the north end has not been cut over yet.

Mr. WEYERHAEUSER. That is right.

The CHAIRMAN. This territory east of that, is there any way at present of reaching that?

Mr. WEYERHAEUSER. Logs have been taken from Vermilion Lake and taken to Tower. Also carried down on the Iron Range road to Duluth.

The CHAIRMAN. Has there been more or less of the white pine cut out over areas all over this county?

Mr. WEYERHAEUSER. I am not positive on that. There has been a small amount taken to the lake and manufactured at Tower and up in here.

The CHAIRMAN. What proportion of the lower half of this county would you say has been cut over?

Mr. WEYERHAEUSER. I would say about 50 per cent. This land in here is largely swamp land.

The CHAIRMAN. Muskeg?

Mr. WEYERHAEUSER. Yes.

The CHAIRMAN. Has nothing on it worth cutting?

Mr. WEYERHAEUSER. No, sir.

The CHAIRMAN. What proportion of the forest is spruce, do you think?

Mr. WEYERHAEUSER. I do not know.

The CHAIRMAN. What is the prevailing tree in the forest?

Mr. WEYERHAEUSER. The white pine and Norway and some spruce and aspen. We call it poplar here, I believe.

The CHAIRMAN. Is there a good deal of tamarack?

Mr. WEYERHAEUSER. Some tamarack.

The CHAIRMAN. Any balsam?

Mr. WEYERHAEUSER. Yes, sir.

The CHAIRMAN. What is the balsam cut for—anything?

Mr. WEYERHAEUSER. We cut a small part of it if it is large enough, but hardly make a practice of it.

The CHAIRMAN. How does spruce grow, large or small?

Mr. WEYERHAEUSER. It is small compared with what I have heard about Maine spruce or spruce out of this country. It runs about 4 to 6 or 7 inches in diameter.

The CHAIRMAN. Is there very much of the large upland spruce suitable for saw logs?

Mr. WEYERHAEUSER. Yes; from 6 inches up to 7.

The CHAIRMAN. I mean 12 to 24.

Mr. WEYERHAEUSER. A very small percentage.

The CHAIRMAN. Up to a recent period, was it cut to any extent?

Mr. WEYERHAEUSER. No, sir.

The CHAIRMAN. Do you know how long they have been cutting pulp wood up here?

Mr. WEYERHAEUSER. About ten years.

The CHAIRMAN. Had there been any pulp wood cut here before then?

Mr. WEYERHAEUSER. Not that I know of.

The CHAIRMAN. The Wisconsin mills rely upon this territory quite largely now?

Mr. WEYERHAEUSER. They are drawing on it at the present time.

The CHAIRMAN. Is there much cut for them over in this locality where your holdings are?

Mr. WEYERHAEUSER. Not to any large extent. They have been drawing largely from the Iron Range road which goes up through here, and then the Missaba up in here.

The CHAIRMAN. On each side of yours?

Mr. WEYERHAEUSER. Either side of the track, probably going back 4 or 5 miles, I should imagine, and hauling the stuff in.

The CHAIRMAN. Does spruce usually grow in swamp land and low land?

Mr. WEYERHAEUSER. Yes, sir.

The CHAIRMAN. When you say there has been 50 per cent of these holdings probably cut over, what per cent would you say of the spruce holdings have been cut over?

Mr. WEYERHAEUSER. I would say a very small portion of it. I have been here twelve years, and they have been operating in this town probably twenty-five years. Twelve years ago they would hardly look at a log less than 10 inches in diameter. The result was they left all the by-products and did not go into the swamps.

The CHAIRMAN. Is the only pulp wood that has been cut from your holdings wood that has been cut for the Northwest Paper Company?

Mr. WEYERHAEUSER. No, sir; they have been shipping some to Wisconsin.

The CHAIRMAN. In your lumbering operations do you in cutting forests save the pulp wood?

Mr. WEYERHAEUSER. We endeavor to do so; yes, sir.

The CHAIRMAN. That is, you cut the forest out pretty clean where you cut at all?

Mr. WEYERHAEUSER. Yes, sir.

The CHAIRMAN. When you are cutting for saw logs, and you come to a spruce swamp filled with spruce from 4 to 6 inches, do you cut that?

Mr. WEYERHAEUSER. No, sir; we cut our logs first, and then we have a subsidiary company that makes a business of getting out ties and pulp wood and posts and poles, and they follow up our logging operations and take what is left.

The CHAIRMAN. What do you cut out for logs first?

Mr. WEYERHAEUSER. Take the white pine and Norway and jack pine and tamarack and spruce down to probably 6 inches.

The CHAIRMAN. How small tamarack do you take?

Mr. WEYERHAEUSER. About 5 inches.

The CHAIRMAN. That does not leave ties?

Mr. WEYERHAEUSER. No; it don't make ties.

The CHAIRMAN. You would not leave any ties on that ground?

Mr. WEYERHAEUSER. In the tie proposition we sometimes go in and take the large trees and make ties out of them. It all depends on the market for ties as compared with lumber.

The CHAIRMAN. I wanted to get at the method. You stated that you had a subsidiary company that followed after your logging operations and cut out the ties and poles and pulp wood. If you cut as low as 5 inches you would not have any ties left?

Mr. WEYERHAEUSER. No; but following that statement up it all depends on the market. Last winter we left the tamarack large enough

for making ties to make ties. This year we are going to cut the tie business out entirely and do as little as we possibly can.

The CHAIRMAN. You will cut the pulp wood business out except what you need here, won't you?

Mr. WEYERHAEUSER. I think so.

The CHAIRMAN. Have you ever made any estimate about how long this spruce forest up here will last at the present rate of consumption?

Mr. WEYERHAEUSER. No, sir; I don't know anything about it. I have no idea. I would not want to make a guess at it.

The CHAIRMAN. Do you know where there is any other good spruce forest?

Mr. WEYERHAEUSER. They tell me the best spruce is over in Lake County. I have never been in the county to go into the timber.

The CHAIRMAN. Do you know of any spruce in the areas west of Minnesota?

Mr. WEYERHAEUSER. There is spruce on the Pacific coast.

The CHAIRMAN. Do you mean on the Pacific slope?

Mr. WEYERHAEUSER. Yes, sir.

The CHAIRMAN. This side of the divide, is there much spruce in Idaho and Montana?

Mr. WEYERHAEUSER. I would say not.

The CHAIRMAN. Are you personally acquainted with the conditions out there?

Mr. WEYERHAEUSER. I have been out there, but I am not in touch with the details or been in the timber to any great extent.

The CHAIRMAN. Some gentlemen have testified that there is quite a good deal of spruce out there. I wondered if anyone had ever examined it carefully. Where are we going up here?

Mr. WEYERHAEUSER. That is pretty hard for me to answer without asking you where you want to go or what you want to see.

The CHAIRMAN. We want to go up to one of your lumbering camps if you have one in operation.

Mr. WEYERHAEUSER. Shall I ask Mr. McNair to tell you what the programme is? He has made the arrangements and it is up to him. We will take you anywhere you want to go.

Mr. RYAN. Before you go into that. Have you any idea as to the amount of standing spruce in Minnesota?

Mr. WEYERHAEUSER. No, sir; I don't know anything about it. I have no basis to make any calculation on. I have seen statements varying a great many millions. We are a very small factor here, and are not in touch with it.

The CHAIRMAN. Have you recently been examined here by the Government under the Bureau of Corporations endeavoring to collect forestry statistics?

Mr. WEYERHAEUSER. They have been out here pretty thick, Mr. Mann; yes, sir. They have asked about timber holdings that various parties are interested in and we have given them as near as we possibly could. We have turned in all those reports to the department, but a great deal of this timber, speaking for these various companies in general, has been bought on estimates made fifteen or twenty or twenty-five years ago, and we do not consider the estimates worth very much. It is largely a guess as to what there is.

The CHAIRMAN. Then the figures which you have returned from the figures which you have, you do not consider very reliable down to date?

Mr. WEYERHAEUSER. No, sir.

The CHAIRMAN. Is there any way of getting an accurate census of the standing timber?

Mr. WEYERHAEUSER. I would like to make one statement. Five years ago or four years ago we bought some timber on a reservation here, Fond du Lac Reservation, under the Morris Act. The Government sold us, according to their estimate, 42,000,000. They made the estimate within six years. We have cut 49,000,000 of timber, and have cut approximately half of the descriptions. I just mention that to show you how closely they come to it.

The CHAIRMAN. Who made that estimate; who cruised the timber?

Mr. WEYERHAEUSER. Somebody from Washington, I could not tell you.

The CHAIRMAN. The forestry department?

Mr. WEYERHAEUSER. Yes.

The CHAIRMAN. That was under the Indian Office, of course?

Mr. WEYERHAEUSER. We pay for this timber bank scale.

Mr. RYAN. Explain that, please.

Mr. WEYERHAEUSER. An estimate is a mere guess. A cruiser will go through the timber and say there is a certain amount of timber on a section by description. After the logs are cut they are scaled and the payment is made on the actual measurement of the log, or the contents of the log.

Mr. RYAN. In other words, the estimate has nothing to do with what you pay?

Mr. WEYERHAEUSER. No, sir.

Mr. RYAN. You pay for what you get?

Mr. WEYERHAEUSER. We pay for what we get. I was just citing that to demonstrate how close an estimate would come.

The CHAIRMAN. Is that Indian reservation timber?

Mr. WEYERHAEUSER. Yes, sir.

The CHAIRMAN. Do you cut it clean?

Mr. WEYERHAEUSER. Yes, sir.

The CHAIRMAN. I thought that act provided for cutting only matured timber. I thought they selected the trees to be cut.

(Mr. Weyerhaeuser handed the chairman a pamphlet showing Chippewa pine lands.)

The CHAIRMAN. How much of this ceded Chippewa pine lands did you purchase, or the timber on it?

Mr. WEYERHAEUSER. According to the estimates, I think there was approximately 42,000,000.

The CHAIRMAN. What proportion of it?

Mr. WEYERHAEUSER. I could not tell you.

Mr. RYAN. That was the Fond du Lac Reservation?

Mr. WEYERHAEUSER. Fond du Lac Reservation.

The CHAIRMAN. They seem to have estimated only the pine.

Mr. WEYERHAEUSER. That is all they sold.

The CHAIRMAN. Is that what you cut?

Mr. WEYERHAEUSER. Yes, sir.

The CHAIRMAN. Is there any spruce up there?

Mr. WEYERHAEUSER. Some scattering spruce.

The CHAIRMAN. Is there any left after you get through logging?

Mr. WEYERHAEUSER. We leave it entirely. We do not take it.

The CHAIRMAN. I mean is it left standing or does it get broken down?

Mr. WEYERHAEUSER. It goes down, but it is left there intact.

The CHAIRMAN. You say you purchased 42,000,000 or 41,000,000?

Mr. WEYERHAEUSER. I think it was 42,000,000, Government estimate.

The CHAIRMAN. You have already cut 49,000,000?

Mr. WEYERHAEUSER. Yes, sir.

The CHAIRMAN. And get half of it left?

Mr. WEYERHAEUSER. Approximately half of the descriptions.

The CHAIRMAN. Was that probably fairly well cruised?

Mr. WEYERHAEUSER. I don't know.

The CHAIRMAN. As estimating goes, I mean?

Mr. WEYERHAEUSER. I think lumbermen would come a little closer to it. I do not want to criticise the Government's work.

The CHAIRMAN. Do not hesitate on our account. You can not criticise them any more than we often do. Is there any way of taking an accurate census of the standing timber?

Mr. WEYERHAEUSER. I do not think it is practicable. Conditions are changing, timber is growing, and one thing and another.

The CHAIRMAN. Are there enough men in the country who know how to do it, to do it within a reasonable time?

Mr. WEYERHAEUSER. I don't think so.

The CHAIRMAN. Is there any conservation of the timber on your holdings, or any effort to have reproduction?

Mr. WEYERHAEUSER. I would say no. We had Mr. Pinchot out here, and he sent a representative out to draw up a working plan for us, and made a very elaborate report which was very interesting, but the report showed it would take about fifty years to develop a tree 12 inches in diameter, and we hardly felt justified in going into it. Another great objection is the fact that, as I stated—

Mr. RYAN. What sort of a tree do you refer to?

Mr. WEYERHAEUSER. I think it was a white pine tree. The fact that a large per cent of the holdings are permits, licenses to remove the timber, and after the expiration of the period the remaining timber reverts back to the original holder.

The CHAIRMAN. Of course, you could not very well afford to keep that until after the time had expired and pay taxes on it. Do you have adequate fire protection?

Mr. WEYERHAEUSER. I couldn't say. There have been rumors of forest fires on the range. As far as this office knows we have not lost a tree this summer.

The CHAIRMAN. Do you call that the result of good luck or wise management?

Mr. WEYERHAEUSER. I consider it good luck in having cruisers around tending to their business.

The CHAIRMAN. You have had men watching for the fires?

Mr. WEYERHAEUSER. Certainly. We had probably four men up in the vicinity of Chisholm. The town of Chisholm is located right here. We have timber in these towns, and we had men watching there all the time and did not lose anything. Chisholm is here.

The CHAIRMAN. That is on the outskirts of your holdings?

Mr. WEYERHAEUSER. Within 6 or 8 miles.

The CHAIRMAN. How about the rest of your holdings?

Mr. WEYERHAEUSER. We have not lost any timber that we know of.

The CHAIRMAN. Have you areas of land of sufficient size to induce you, under favorable conditions, to attempt the reproduction of timber?

Mr. WEYERHAEUSER. I would not consider it such here in Minnesota. I do not think it is practicable to wait fifty years to get a tree 12 inches in diameter, as Mr. Pinchot's report showed.

The CHAIRMAN. We saw the result of having to wait one hundred years to get a spruce tree 4 inches in diameter in many places up here. What are we going to do for timber after a while?

Mr. WEYERHAEUSER. I do not want to cross a bridge until I come to it.

The CHAIRMAN. A man who is going on a journey and does not know whether there is a bridge across the river that he has got to cross would not be considered the wisest sort of a traveler.

Mr. WEYERHAEUSER. That is so.

The CHAIRMAN. I imagine when you get out into the woods to a place where there is a river you come prepared to get over.

Mr. WEYERHAEUSER. We endeavor to. Sometimes we fail.

The CHAIRMAN. So in that case you do cross the bridge before you come to it?

Mr. WEYERHAEUSER. Yes, sir.

The CHAIRMAN. What are we going to do for timber in a few years from now at the present rate of consumption, in your opinion?

Mr. WEYERHAEUSER. I think there is timber enough in this country to last a great many years.

The CHAIRMAN. Where is it?

Mr. WEYERHAEUSER. In Minnesota here; in Montana and Idaho and the Pacific coast; in the Southern States.

The CHAIRMAN. You are cutting the timber off pretty rapidly up here, aren't you?

Mr. WEYERHAEUSER. We are making some headway on it, but not near as fast as I was told that we would be ten years ago. In other words, I came here twelve years ago and I was told that it would be cut out in ten years, and we have been here twelve years and we have got 450,000,000 feet of standing timber.

The CHAIRMAN. A gentleman estimated to us this morning that you probably had 40,000,000 cords of pulp wood standing. Do you think that would probably be anything like an accurate estimate?

Mr. WEYERHAEUSER. I could not tell you. I know absolutely nothing about it.

Mr. RYAN. Is the estimate of the standing timber on that Fond du Lac reservation that you mentioned a short time ago a fair example of the estimates given generally of the standing timber on other tracts?

Mr. WEYERHAEUSER. I would say not.

Mr. RYAN. In what respect does it differ?

Mr. WEYERHAEUSER. They ought to get within 10 or 15 per cent of the actual amount of timber on the land.

Mr. RYAN. They do come that near?

Mr. WEYERHAEUSER. Yes, sir.

Mr. RYAN. Is that the way that the timber is always purchased; that is, they make an estimate and then pay for what you get out of it?

Mr. WEYERHAEUSER. That is the idea, unless we should buy the logs bank scale.

Mr. RYAN. Suppose you buy a tract of land, buy the entire land and all, including the standing timber, how near can they come to the amount of standing timber if they estimate it at a fixed amount, or do they ever do it that way?

Mr. WEYERHAEUSER. It depends entirely on the basis that they take the estimate. Ten years ago they estimated down to 8 inches. On the Pacific coast they take the standard of 12 inches at the top. In this country they are estimating down to 6 inches and 5 inches.

Mr. RYAN. At the top?

Mr. WEYERHAEUSER. Yes, sir.

Mr. RYAN. A tree that was 6 inches at the top twelve years ago is quite a good-sized tree now?

Mr. WEYERHAEUSER. It has grown some.

Mr. RYAN. That is one of the reasons why it runs over?

Mr. WEYERHAEUSER. That might have something to do with it.

The CHAIRMAN. That estimate was not made twelve years ago that he refers to. Mr. Weyerhaeuser refers to a pamphlet issued by W. A. Richards, Commissioner-General of the Land Office, entitled "Ceded Chippewa Pine Lands, Minnesota. Descriptions of lands and estimates of pine timber on Pigeon River, Fond du Lac, Deer Creek, and parts of Chippewa, of the Mississippi, Winnebigoshish, Leech Lake, Red Lake, and White Earth Indian reservations. Instructions to local officers, rules and regulations for selling and removing timber to be sold at Cass Lake, Minnesota, on November 15, 1904. Approved April 28, 1904. Printed at the Government Printing Office in 1904. And referring to an act entitled an act to amend an act entitled an act for the relief and civilization of the Chippewa Indians, in the State of Minnesota, approved January 14, 1889, the amendatory act approved June 27, 1902. 32 Statutes at Large, page 400." Where are we going when we start out?

Mr. McNAIR. We would like to have you go to the Northwest Paper Company mill.

The CHAIRMAN. To-morrow where are we going?

Mr. WEYERHAEUSER. If you will step to the map we will show you right exactly where. You go up on the logging road from Cloquet up the Cloquet River, which branches off here and goes up through this country. You are going to Stroud. Stroud is right there and Rush Lake is right there.

The CHAIRMAN. How long will we be gone?

Mr. McNAIR. That is entirely for you to say. We can be back to-morrow night from there.

The CHAIRMAN. Do you know how much you have cut off your own land?

Mr. McNAIR. Practically none of the paper company's land.

The CHAIRMAN. You cut saw logs on your own land?

Mr. WEYERHAEUSER. Yes, sir.

The CHAIRMAN. Does the company own much land?

Mr. McNAIR. We have about 30,000 acres.

The CHAIRMAN. Do you get most of your pulp wood now from the other Weyerhaeuser companies?

Mr. McNAIR. Up to the last year practically all of our pulp wood has come from outside sources other than the Weyerhaeuser companies.

The CHAIRMAN. Mr. Weyerhaeuser, you have traveled over this land a good deal?

Mr. WEYERHAEUSER. I have been up in this country for twelve years, more or less.

The CHAIRMAN. Is it good farm land or capable of being made into good farm land?

Mr. WEYERHAEUSER. I would say a better grazing country than a farming country. They can raise all kinds of roots up there.

The CHAIRMAN. It is largely a peaty substance, isn't it?

Mr. WEYERHAEUSER. There is some light soil and very stony.

The CHAIRMAN. What kind of soil has the swamps?

Mr. WEYERHAEUSER. A sort of peat. I would imagine you would call it.

The CHAIRMAN. Muskeg is mostly all peat apparently.

Mr. WEYERHAEUSER. Yes, sir.

The CHAIRMAN. Supposing that is drained off, what effect would that have on the forests?

Mr. WEYERHAEUSER. Some people claim it will kill the timber and other people say it will not. This country has never been drained, so I could not tell you.

The CHAIRMAN. If they drain the country off and that should have the effect of injuring the spruce forests, the natural thing to do would be to cut it down as rapidly as possible, I suppose.

Mr. WEYERHAEUSER. I should think so. But I do not believe that draining the swamps would affect the spruce, from the fact that it grows on the high land as well as the low land. I believe it would kill the tamarack much quicker than the spruce.

The CHAIRMAN. The peat, even in a spruce forest, is pretty thick, isn't it?

Mr. WEYERHAEUSER. Yes, sir.

The CHAIRMAN. Three to 5 feet?

Mr. WEYERHAEUSER. I couldn't tell you. I never dug down.

The CHAIRMAN. You have seen these ditches along the railroad tracks?

Mr. WEYERHAEUSER. Yes, sir.

The CHAIRMAN. You can see they are from 3 to 5 feet?

Mr. WEYERHAEUSER. Fully that.

The CHAIRMAN. Mostly they are peat?

Mr. WEYERHAEUSER. Yes, sir.

The CHAIRMAN. A spruce tree does not send its roots down very deep, as a rule.

Mr. WEYERHAEUSER. No, sir.

The CHAIRMAN. If you drain that land off so that the level of the water is constantly reduced from above the surface to 3 or 4 feet below the surface it might have a very detrimental effect.

Mr. WEYERHAEUSER. There is no doubt about that. A radical change would affect it more or less. It would stunt the growth at least.

The CHAIRMAN. It is the constant observation in Chicago, at least, where the sand ridges were all covered with oak, that putting in a sewer system and reducing the level of the water in the sand several feet will kill off a fairly large percentage of the oak at once. If the tree survives a year or two and manages to get roots down to the water level it is very apt to continue in a healthy condition. That might be the case with your spruce forests. Is any effort being made to drain this land up here that you know of?

Mr. WEYERHAEUSER. No, sir; not in our immediate territory.

The CHAIRMAN. Aren't there some state drainage ditches going in in the southwestern portion of this county?

Mr. WEYERHAEUSER. The State is putting in a drainage system all through the State, as I understand, but not up in our timber holdings.

The CHAIRMAN. You run pretty well toward the southwestern portion of the county according to that map?

Mr. WEYERHAEUSER. I could not tell you where the State is putting in ditches in this county. I have never been there.

The CHAIRMAN. Mr. Arnold told us this morning that they were putting in a series of ditches there and I think the total length was about 45 miles, though I am not sure.

Mr. RYAN. \$45,000 was appropriated.

The CHAIRMAN. About 40 miles, Mr. Norris says, in four years' time. If the land should be considered as valuable when drained for any form of agriculture, it is sure to be drained in a little while, isn't it?

Mr. WEYERHAEUSER. I do not think there is any doubt about it.

The CHAIRMAN. It is not valuable for timber reproduction, in your opinion, if it takes fifty years for a 12-inch white pine to develop, or a hundred years for a 6-inch spruce. It would not be worth while to hold it for that purpose, would it, as against farm land?

Mr. WEYERHAEUSER. I shouldn't think so.

The CHAIRMAN. Isn't there a good deal of this land that is worthless for any other purpose, where it is rocky and stony?

Mr. WEYERHAEUSER. There is a great deal of waste land right through here [indicating].

The CHAIRMAN. That is right west of your main holdings?

Mr. WEYERHAEUSER. Yes, sir.

The CHAIRMAN. In the western portion of this county?

Mr. WEYERHAEUSER. Yes.

The CHAIRMAN. That is muskeg?

Mr. WEYERHAEUSER. Muskeg.

The CHAIRMAN. In the territory that you have through there are there many settlers?

Mr. WEYERHAEUSER. No, sir.

The CHAIRMAN. There is no homestead land there to speak of?

Mr. WEYERHAEUSER. Very few settlers except on the rivers—a few get in. There are a few in there, but take it as a whole, there is a very small percentage of settlers.

The CHAIRMAN. What becomes of the land that has been cut over?

Mr. WEYERHAEUSER. We have been carrying it; paying taxes on it; holding it.

The CHAIRMAN. It is not utilized in any way?

Mr. WEYERHAEUSER. No, sir.

The CHAIRMAN. Is it getting any second growth timber on it?

Mr. WEYERHAEUSER. In places the second growth of timber is coming up.

The CHAIRMAN. Do you consider that of any value?

Mr. WEYERHAEUSER. It will be eventually if settlers come in there—for fuel, but not from a timber standpoint.

The CHAIRMAN. You think it will never likely get large enough for saw logs?

Mr. WEYERHAEUSER. I think not, unless we wait a hundred years.

The CHAIRMAN. Do you think there is any probability of that land remaining without fire long enough to develop merchantable timber?

Mr. WEYERHAEUSER. No, sir; that is the great hazard that we have to contend with. One of the main objections to reforestation is the hazard, and there is also the taxes.

The CHAIRMAN. If you owned a piece of land up here of sufficient size that under other circumstances might pay you to develop timber on it and it was worthless for any other purpose, in order to do that you would have to pay the taxes on the value of the land year by year, I suppose?

Mr. WEYERHAEUSER. Yes, sir.

The CHAIRMAN. Then in order to preserve your timber you would have to furnish an adequate fire protection at considerable expense; is that right?

Mr. WEYERHAEUSER. Yes, sir.

The CHAIRMAN. In your opinion that would not pay?

Mr. WEYERHAEUSER. No, sir.

The CHAIRMAN. Supposing the State owned that land, or the General Government. They are talking of creating a forest reservation in the White Mountains for the benefit of the summer resorters, one in the Appalachians for the benefit of the Vanderbilt estate, and others down there. Why wouldn't it be practicable for the Government to really create a forest reservation up here on land that was worth little for any other purpose and raise pulp wood for future dissemination of knowledge throughout the world?

Mr. WEYERHAEUSER. I believe it would be practicable for the State or Government to enter into a thing of that kind, but when it comes to an individual or a corporation I do not believe they can afford to wait for it.

The CHAIRMAN. Have you ever considered the fact that in Maine the large companies that own pulp wood do not cut the smaller timber, but keep it for future growth?

Mr. WEYERHAEUSER. I am not familiar with the operations at all.

The CHAIRMAN. In some of those holdings they cut nothing under 14 inches—so they say.

Mr. WEYERHAEUSER. Mr. Pinchot's original proposition was first to cut nothing less than 12 inches, and he found that there was a very small amount of timber here larger than 12 inches.

The CHAIRMAN. He would not get any pulp wood?

Mr. WEYERHAEUSER. Not any pulp wood and not very much pine.

The CHAIRMAN. Do you think there is a possibility of getting the testimony of your father?

Mr. WEYERHAEUSER. I can not tell you. My father was in St. Paul yesterday. I was sorry to see that there was quite a fire in Rock Island, and he may have gone there.

The CHAIRMAN. If we go back to St. Paul I would like to get the statement of your father and Mr. T. B. Walker. It would seem as though the older generation which has reached the point where it can look calmly at things might be willing to give some general views for the benefit of the succeeding and the next generation. They probably never will have as good opportunity again for doing it, and everybody thinks, except himself, that he knows more about it than anyone else.

Mr. WEYERHAEUSER. He is hardly in touch with the details of the various operations, but in a general way he can give you valuable information.

The CHAIRMAN. That is what I mean. I think his views would be of considerable interest. I would like to have him do it. You are going up with us?

Mr. WEYERHAEUSER. I can go. I have got a message on my desk to go to Duluth to-morrow. I can postpone that if I can be of any assistance to you, and would be glad to go.

The CHAIRMAN. I do not know that you can be of any assistance, but we would like your company.

Mr. WEYERHAEUSER. That settles it. I shall be glad to go.

The committee visited and inspected the paper mills of the Northwest Paper Company at Cloquet, Minn., October 20, 1908.

OCTOBER 21, 1908.

The committee, with Mr. Weyerhaeuser and others, took a trip of about 50 miles and return on the railroad of the Duluth and Northeastern Railroad Company.

CLOQUET, MINN., *October 21, 1908—4 p. m.*

STATEMENT OF H. C. HORNBY, OF CLOQUET, MINN.

(Sworn and examined by the chairman.)

The CHAIRMAN. Give your name?

Mr. HORNBY. H. C. Hornby.

The CHAIRMAN. What company are you connected with?

Mr. HORNBY. Cloquet Lumber Company.

The CHAIRMAN. How long have you been operating in this part of the country?

Mr. HORNBY. I have been here twenty-four years.

The CHAIRMAN. In connection with the logging or lumber business?

Mr. HORNBY. Yes, sir.

The CHAIRMAN. Are you quite familiar, from your experience, with the forest situation in this part of Minnesota?

Mr. HORNBY. I know some of it in regard to our own operations.

The CHAIRMAN. What do you get out mostly?

Mr. HORNBY. Saw logs and ties and pulp wood, cedar posts and poles.

The CHAIRMAN. What are the saw logs?

Mr. HORNBY. White pine, Norway, tamarack, and spruce.

The CHAIRMAN. What is the prevailing timber here?

Mr. HORNBY. White pine is the majority.

The CHAIRMAN. On what character of ground does that grow?

Mr. HORNBY. It is quite a variety of ground. Some quite rocky and other not so bad. All this country is more or less of a glacial formation; boulders and stones in it.

The CHAIRMAN. White pine grows best on rocky ground?

Mr. HORNBY. No; it grows best on the better ground. The finest white pine we get is in hard-wood timber, which is generally on pretty fair land.

The CHAIRMAN. What kind of an undersoil?

Mr. HORNBY. Gravel.

The CHAIRMAN. What grows in the swampy portion of the country?

Mr. HORNBY. Spruce, tamarack, cedar, some black ash, and elm.

The CHAIRMAN. How large does the spruce grow generally?

Mr. HORNBY. It varies from 3 to 12 inches; very little over 12.

The CHAIRMAN. How large does it grow in the muskeg?

Mr. HORNBY. Three or 4 inches in diameter. From 1 inch to 4 inches.

The CHAIRMAN. Have you any idea of the age of the spruce?

Mr. HORNBY. It never seems to grow any in the muskeg. I never looked up the age of the other spruce at all.

The CHAIRMAN. What is your judgment as to the future of the forests in Minnesota; how long they will last?

Mr. HORNBY. There is quite a considerable timber left in Minnesota yet and every year it is used closer; there is less waste, and every kind of wood is being utilized, which makes it go a good deal further than it used to.

The CHAIRMAN. What do you mean by that? For instance, give us a comparison.

Mr. HORNBY. Take, say, fifteen years ago, the grade of No. 5 boards was unknown. It was all burned to get it out of the way.

The CHAIRMAN. What is No. 5 board?

Mr. HORNBY. Very low grade of cull lumber. Short lumber is saved for box lumber.

The CHAIRMAN. We notice large quantities of pieces cut up for box making. What was done with them a few years ago?

Mr. HORNBY. It all went into wood and was burned up.

The CHAIRMAN. That is now taken out from what would have been then culls?

Mr. HORNBY. Yes, sir.

The CHAIRMAN. Are you very familiar with the spruce forest here or do you pay much attention to that?

Mr. HORNBY. The Cloquet Tie and Post Company get out considerable quantities of spruce every year.

The CHAIRMAN. Where you log over you take out the saw logs?

Mr. HORNBY. We take out the saw logs and sometimes the spruce and ties; at other times we turn it over to the tie company. It depends on the logging operation.

The CHAIRMAN. They follow you up?

Mr. HORNBY. As a general thing.

The CHAIRMAN. How soon do they go over it after the loggers go over it?

Mr. HORNBY. Sometimes they go over it the same year. There is lots of it they have not been on at all.

The CHAIRMAN. Lots of it has been burned over?

Mr. HORNBY. Some of it has been burned over.

The CHAIRMAN. Is there much second-growth timber here?

Mr. HORNBY. There are a great many places where there is a good growth of timber started.

The CHAIRMAN. How large would that be, how old?

Mr. HORNBY. Some of it would be twenty years. Very little older than that.

The CHAIRMAN. If you could keep fire out of that, it would soon become valuable?

Mr. HORNBY. Yes, sir.

The CHAIRMAN. With fire going into it, it is of no value?

Mr. HORNBY. It burns it up, especially in the white pine. Norway don't suffer so much.

The CHAIRMAN. As well as the spruce?

Mr. HORNBY. Yes; spruce won't stand fire at all.

Mr. RYAN. Until very recently very little attention was paid to spruce timber in this territory?

Mr. HORNBY. Within the last few years.

The CHAIRMAN. Why?

Mr. HORNBY. It was not supposed to be valuable for saw logs. Lumber was not worth enough to handle it. It is small and the logging of it costs a good deal. Since lumber has got to a point where it can be handled at a profit, they put a good deal into saw logs, and there has been a call for it for pulp wood in recent years.

The CHAIRMAN. What is the difference in value between white-pine boards and spruce boards for lumber?

Mr. HORNBY. We get very little spruce that runs to the upper grade of lumber. There is a small amount of spruce that will go better than a No. 2 board, which is just about medium in white pine.

The CHAIRMAN. I do not quite understand.

Mr. HORNBY. The best of the spruce is only about medium grade of white pine.

The CHAIRMAN. What is the difference in value?

Mr. HORNBY. That is about the difference that I could give you.

The CHAIRMAN. What is No. 1 pine worth in the market?

Mr. HORNBY. It all cuts together according to the grade it will make. The best of the spruce only makes a poorer grade of white pine.

The CHAIRMAN. What is No. 1 grade worth to-day of white pine?

Mr. HORNBY. \$22.

The CHAIRMAN. What is No. 2 grade worth?

Mr. HORNBY. About \$20. That is in piece stuff, 2 inch. In boards it is worth more.

The CHAIRMAN. Good spruce is worth about 10 per cent less than good pine?

Mr. HORNBY. No. If the average grade of pine would be \$24, the spruce would not be worth over \$18 at the outside, 25 per cent less.

The CHAIRMAN. Then you revise your figures?

Mr. HORNBY. You asked me the price of No. 1 white pine and the price of No. 2 pine and I gave it \$22 and \$20. We make about 50 grades of lumber, and I told you that spruce was about the medium, about half way between our poorest white pine and our best. There are 50 grades in there.

The CHAIRMAN. Do you think there is any danger of white pine giving out up here?

Mr. HORNBY. It will in time.

The CHAIRMAN. Any danger of spruce giving out?

Mr. HORNBY. It will in time.

The CHAIRMAN. Is there any practical reproduction of spruce here?

Mr. HORNBY. I think that it will grow, but all this timber grows slow.

The CHAIRMAN. Have you any opinion as to the effect of draining the swamps?

Mr. HORNBY. Only that spruce won't grow on dry land very well.

The CHAIRMAN. The best spruce you have got is upland spruce?

Mr. HORNBY. Yes, but the bulk of the spruce is in the swamps.

The CHAIRMAN. You think that that indicates that that spruce won't grow on upland?

Mr. HORNBY. It will grow on upland because it is growing there. The bulk in this country is growing in the swamps or low grounds.

The CHAIRMAN. Have you any other suggestion to make to us from your large experience in connection with these matters?

Mr. HORNBY. I do not think I have, except in connection with my work. I am not a student of the subject at all. I think that the forests could be perpetuated easy enough if they would go at it and try to do it, if the State and Government would cooperate. The taxes are what eats the thing up.

The CHAIRMAN. What are the taxes on ordinary land up here which is denuded of the forests?

Mr. HORNBY. I could not give you that exactly. It usually eats up the value of the land.

The CHAIRMAN. If the land had a young forest growing on it, the forest would be getting more valuable, wouldn't it?

Mr. HORNBY. Mr. Pinchot's department came up here one time and made an extensive study of the situation with a view of putting our holdings on a forestry basis, and he found that the average life of the timber in the country you were in to-day was about seventy years.

Mr. RYAN. Do you agree with him in his conclusion?

Mr. HORNBY. Yes; I would.

The CHAIRMAN. Do you think you can reproduce one of those white-pine trees we saw to-day in seventy years?

Mr. HORNBY. Not the biggest ones. That is old timber. That probably is one hundred and fifty years old, or one hundred and twenty-five.

The CHAIRMAN. Their opinion was you could reproduce 12-inch white pine in about fifty years, wasn't it?

Mr. HORNBY. It was the average pine in that country. I think the pine you saw last would be about an average stand.

STATEMENT OF F. H. CROMBIE, OF SPOKANE, WASH., TAKEN AT CLOQUET, MINN.

(Sworn and examined by the chairman.)

The CHAIRMAN. Give your full name.

Mr. CROMBIE. F. H. Crombie.

The CHAIRMAN. Where do you live?

Mr. CROMBIE. Spokane, Wash.

The CHAIRMAN. You are interested in one of the lumber companies here?

Mr. CROMBIE. Slightly interested here.

The CHAIRMAN. Are the Weyerhaeusers interested with you out West?

Mr. CROMBIE. No, sir.

The CHAIRMAN. Are you familiar with the forestry situation in Idaho and Montana?

Mr. CROMBIE. Somewhat.

The CHAIRMAN. What are the forestry conditions out there?

Mr. CROMBIE. The woods are every evergreen that grows. That includes white pine—I am speaking now of the Panhandle of northern Idaho—white pine, yellow pine, spruce, red and white fir, cedar, hemlock, and in addition to the evergreens is tamarack.

The CHAIRMAN. Do they grow in about equal proportions?

Mr. CROMBIE. I should say probably 30 per cent white pine.

The CHAIRMAN. How much of tamarack?

Mr. CROMBIE. It would be hard to give you the percentage of those other woods. In estimating timber there we usually put white pine, which is the most desired wood, by itself and bunch the others. The other woods would vary, those that I have named, I should say, from 5 to 10 per cent each.

The CHAIRMAN. How much spruce is there out there?

Mr. CROMBIE. Spruce does not grow in all localities, but as near as I can make an estimate it is probably 5 to 7 per cent of the whole.

The CHAIRMAN. Does it grow up on the sides of the mountains?

Mr. CROMBIE. Yes, sir; and our spruce is a good deal of it good size; not small, as it is here. It is logging size.

The CHAIRMAN. It grows higher up on the sides of the mountains, doesn't it?

Mr. CROMBIE. Quite a portion of it. We have some in the low lands.

The CHAIRMAN. Spruce grows up toward the top of the timber line, I think, out there, doesn't it?

Mr. CROMBIE. Largely so; yes, sir.

The CHAIRMAN. Is it accessible for logging purposes?

Mr. CROMBIE. Yes; when they open up the logging operations they get it along with the other.

Mr. RYAN. Has any of the spruce out there been cut?

Mr. CROMBIE. Yes, sir; they cut it when they come to it.

Mr. RYAN. What are they cutting it for now?

Mr. CROMBIE. It is cut for lumber.

Mr. RYAN. Not for pulp?

Mr. CROMBIE. Not for pulp wood. There are no pulp mills in that vicinity.

The CHAIRMAN. How is it out in Washington?

Mr. CROMBIE. There are localities where there are immense bodies of spruce over on the Sound. I do not know as there is any right on the Sound, but in the vicinity of Grays Harbor, along there.

Mr. RYAN. Is that like this spruce here?

Mr. CROMBIE. No, it is larger spruce and better quality.

The CHAIRMAN. Saw-log spruce?

Mr. CROMBIE. Yes, sir.

The CHAIRMAN. Too valuable for pulp wood, I suppose.

Mr. CROMBIE. I think there is a portion that they would probably use for pulp wood if there were mills in that vicinity.

The CHAIRMAN. Have they any paper mills out there that you know of?

Mr. CROMBIE. I am not so well acquainted on the Sound. There are none in our vicinity. I am not sure whether there are any on the Sound or not.

The CHAIRMAN. You are not familiar with the question of where they get their pulp wood from?

Mr. CROMBIE. No; I am not.

Mr. RYAN. The freight would be rather prohibitory, I suppose, in regard to shipping wood from Idaho and that territory?

Mr. CROMBIE. I think absolutely so.

STATEMENT OF JOHN C. CAMPBELL, OF CLOQUET, MINN.

(Sworn and examined by the chairman.)

The CHAIRMAN. Give your name.

Mr. CAMPBELL. John C. Campbell.

The CHAIRMAN. What company are you connected with?

Mr. CAMPBELL. Cloquet Lumber Company.

The CHAIRMAN. How long have you been operating here?

Mr. CAMPBELL. About nineteen years.

The CHAIRMAN. What is your opinion of the forestry situation here, the timber question, as to the future?

Mr. CAMPBELL. I think there is a great deal of timber yet—spruce, pine and Norway, cedar, balsam, and all that kind of wood.

The CHAIRMAN. Has there been a good deal cut in the last ten years?

Mr. CAMPBELL. Yes; there has been considerable cut.

The CHAIRMAN. How many million feet are cut into boards here at this town in a year?

Mr. CAMPBELL. I could not give you the figures.

The CHAIRMAN. How many does the Cloquet Lumber Company cut?

Mr. CAMPBELL. I suppose they cut somewhere about seventy-five or eighty millions. I do not pay any attention to the manufacturing end.

The CHAIRMAN. How many million feet did we see piled up in the jam to-day, do you remember?

Mr. CAMPBELL. I could not say. There might be 50,000,000; I don't know.

The CHAIRMAN. Mr. Hornby made an estimate of that for us, didn't he?

Mr. HORNBY. About twenty-five is in sight there, I think.

Mr. RYAN. What sort of lumber do you get out?

Mr. CAMPBELL. White pine and Norway, balsam, spruce, and tamarack.

Mr. RYAN. How long have you been cutting spruce and tamarack?

Mr. CAMPBELL. About three or four years, I think.

The CHAIRMAN. Do you get out ties, too?

Mr. CAMPBELL. Some; not a great many.

The CHAIRMAN. Do you get out any pulp wood?

Mr. CAMPBELL. Some.

The CHAIRMAN. Who gets out most of the pulp wood for the Northwest Paper Company?

Mr. CAMPBELL. I think the Cloquet Tie and Post Company.

The CHAIRMAN. That is one of the Weyerhaeuser subsidiary companies?

Mr. CAMPBELL. I think so.

The CHAIRMAN. The Weyerhaeuser interests control all your companies here, don't they?

Mr. CAMPBELL. I don't know. I couldn't say just how the stock is held.

The CHAIRMAN. They are interested in all of the companies?

Mr. CAMPBELL. Yes; I think so.

The CHAIRMAN. What are your views as to any efforts that might or could be made for the reproduction of the forest here?

Mr. CAMPBELL. I think that they can reproduce the different woods if left alone to grow and the fire does not disturb them. White pine and Norway seems to come up and grow right along.

Mr. RYAN. Would it be a profitable venture for private interests?

Mr. CAMPBELL. I don't think so. It takes too long to mature.

Mr. CHAIRMAN. Where you cut over, do you aim to cut the forest clean?

Mr. CAMPBELL. Yes, sir; at present we cut it pretty clean.

The CHAIRMAN. Do you think that land will be used hereafter for the reproduction of forests, or for agricultural purposes?

Mr. CAMPBELL. I could not say. There is some of it that would not be profitable for agricultural land.

The CHAIRMAN. Why not?

Mr. CAMPBELL. It is too rocky.

The CHAIRMAN. Wouldn't that do for pasture lands?

Mr. CAMPBELL. It might. I don't know. I don't think it would do as well.

The CHAIRMAN. Does it grow good grass?

Mr. CAMPBELL. Yes; fair grass grows on it.

The CHAIRMAN. How about the lower land?

Mr. CAMPBELL. I think the lower land, if drained, might be better grass land than high land.

The CHAIRMAN. What is the reason, in your opinion, that the spruce does not grow any better in the muskeg?

Mr. CAMPBELL. I don't know, unless it is too wet in some places.

The CHAIRMAN. You saw me cut down some small spruce trees to-day?

Mr. CAMPBELL. No; I was not along at that time.

The CHAIRMAN. Where was that that I cut those down, Mr. Hornby?

Mr. HORNBY. It was in township 55, range 14.

The CHAIRMAN. Up at camp 5?

Mr. HORNBY. This side of camp 5.

The CHAIRMAN. On your line of road?

Mr. HORNBY. I think it was on Johnson & Wentworth's land, but I am not sure.

The CHAIRMAN. That was on the Duluth and Northeastern Railroad?

Mr. HORNBY. Yes, sir.

The CHAIRMAN. Do you think it is too wet in the swamps for spruce?

Mr. CAMPBELL. I think so, in some places. It has been a very dry season.

The CHAIRMAN. Spruce grows in very wet ground?

Mr. CAMPBELL. It does; but there are some of those swamps that are nothing but peat. If you dry it out, it will burn.

The CHAIRMAN. Tamarack grows in still wetter ground. Do you think it is on account of the wetness here or on account of the character of the soil, the peat?

Mr. CAMPBELL. It is the character of the soil. It is more of a black muck where the tamarack and larger spruce grows, around the foot of the hills where it is better soil.

The CHAIRMAN. This peat is how deep down?

Mr. CAMPBELL. In some places it is 10 feet. You can cut it right out like cheese. There doesn't anything seem to grow on it very much.

Mr. RYAN. It is all wet to the bottom?

Mr. CAMPBELL. It is kind of vegetation and roots.

The CHAIRMAN. Has anybody experimented to see whether that would grow any crop or not?

Mr. CAMPBELL. I think they have, but I have heard no report from it.

Mr. RYAN. What sort of land was it that was used where they have farming up at some camp? Is that this same character of soil?

Mr. CAMPBELL. No; that is a sandy loam. That is on the high ground.

The CHAIRMAN. That is real soil?

Mr. CAMPBELL. Yes; that is fair soil for this country.

STATEMENT OF JOHN H. CHISHOLM, OF CLOQUET, MINN.

(Sworn and examined by the chairman.)

The CHAIRMAN. Give your full name.

Mr. CHISHOLM. John H. Chisholm.

The CHAIRMAN. What company are you connected with?

Mr. CHISHOLM. Johnson & Wentworth.

The CHAIRMAN. That is one of the large lumber companies here?

Mr. CHISHOLM. Yes, sir.

The CHAIRMAN. And logging companies?

Mr. CHISHOLM. Yes, sir.

The CHAIRMAN. Do you do a great deal of lumbering?

Mr. CHISHOLM. 35,000,000 a year.

The CHAIRMAN. Mostly saw logs?

Mr. CHISHOLM. Yes, sir.

The CHAIRMAN. Cut a good many ties?

Mr. CHISHOLM. Not a great many.

The CHAIRMAN. Cut any pulp wood?

Mr. CHISHOLM. Very little.

The CHAIRMAN. Do you go over the forest first, where you cut, and cut out the saw logs and then have the tie and post company go over after you?

Mr. CHISHOLM. Yes, sir.

The CHAIRMAN. Have you any views as to the reproduction of the forest or the conservation of the forest here?

Mr. CHISHOLM. You mean reproduction of timber?

The CHAIRMAN. As to the reproduction of timber or cutting out a certain part of the timber and leaving the smaller timber to grow?

Mr. CHISHOLM. When you cut out the larger timber as a rule the smaller timber will die off with the exception of the spruce swamps. If you can keep the fire out of that it will grow.

The CHAIRMAN. You say the timber will die off. You mean the fire gets in and kills it?

Mr. CHISHOLM. Yes, sir.

The CHAIRMAN. The great enemy of reproduction up here would be fire?

Mr. CHISHOLM. Yes, sir.

The CHAIRMAN. Do you think it would be profitable to endeavor to reproduce timber here?

Mr. CHISHOLM. That would depend, in my judgment, on how you went at it.

The CHAIRMAN. At the present rate will there be any white pine in twenty-five or fifty years anywhere in the country?

Mr. CHISHOLM. I think there will be white pine left in twenty-five years at this rate of cutting.

The CHAIRMAN. Where will it be?

Mr. CHISHOLM. In the northern part of the State, St. Louis County.

The CHAIRMAN. There is not much in Koochiching County?

Mr. CHISHOLM. You did not get down into the interior. Between the Iron range and Koochiching there is lots of timber.

The CHAIRMAN. If there is no white pine reproduced, white pine is liable to be rather expensive in a few years, isn't it?

Mr. CHISHOLM. Yes, sir.

The CHAIRMAN. Is there any effort being made anywhere that you know of to reproduce the white-pine forest?

Mr. CHISHOLM. Not that I know of, other than keeping fires out.

The CHAIRMAN. There is not much effort made to keep fires out, is there?

Mr. CHISHOLM. We watch it pretty closely. You did not see a great deal of our country burned up here. The old cuttings are liable to burn at any time if we are not careful.

The CHAIRMAN. I did not see very much anywhere that has been cut over at any time that has not been burned some time since it was cut over.

Mr. RYAN. In answer to a question a few moments ago you said that when the larger timber is cut out the smaller timber dies. Did you refer particularly to fire in that case?

Mr. CHISHOLM. No. Take the hard wood for instance, maple and birch and basswood.

Mr. RYAN. That will die if the large timber is cut out?

Mr. CHISHOLM. That is the history of our country here.

Mr. RYAN. If you cut out the large pine and leave the smaller sizes, for instance, under 8 inches, that will thrive then?

Mr. CHISHOLM. Not necessarily all the time. You can cut up to a body of pine and the first thing you know in a year or two you will find dead trees around the outside. When you commence to disturb

a bunch of timber, that which you leave standing you will find dead trees all the way around it.

Mr. RYAN. To what do you attribute that?

Mr. CHISHOLM. I don't know why it is.

The CHAIRMAN. Do you think that the timber here is different from what it is everywhere else in the country in that respect?

Mr. CHISHOLM. I have not been over a great deal of the country, only northern Minnesota and Michigan. I have never been out West.

DEMPSEY'S CAMP, NEAR THE CLOQUET RIVER.

NORTHWEST OF TWO HARBORS, MINN.,

October 23, 1908—8 p. m.

STATEMENT OF WILLIAM G. MEADE.

(Examined by the chairman.)

The CHAIRMAN. Give the stenographer your full name.

Mr. MEADE. William G. Meade.

The CHAIRMAN. What is your occupation?

Mr. MEADE. Estimator, cruiser.

The CHAIRMAN. What is a cruiser?

Mr. MEADE. A man that looks up timber and estimates timber.

The CHAIRMAN. How is that done?

Mr. MEADE. It is done by locating where you are and the descriptions and going through and taking an average of the timber by the acre, what it runs.

The CHAIRMAN. You aim to get the quantity of timber on each forty?

Mr. MEADE. Yes, sir.

The CHAIRMAN. Who are you employed by now?

Mr. MEADE. Oliver Iron Mining Company.

The CHAIRMAN. Where are we located just now?

Mr. MEADE. Section 5, town 56, range 10, State of Minnesota, Lake County.

The CHAIRMAN. At a lumber camp, put here by the Cook & O'Brien Company?

Mr. MEADE. Yes.

The CHAIRMAN. Now owned by whom?

Mr. MEADE. The Oliver Iron Mining Company.

The CHAIRMAN. How far from the railroad are we—Duluth and Iron Range Road—from Brimson?

Mr. MEADE. About 15 to 18 miles.

The CHAIRMAN. On the Cloquet River?

Mr. MEADE. The Cloquet River is a little north of us here.

The CHAIRMAN. We walked over from Brimson this morning, or to-day, through the spruce forests and then after we got here, going on through the spruce forests. How does that forest average with the forests in this part of the State?

Mr. MEADE. We came through a good deal of cuttings. There was not much timber until you get up to the camp four miles below.

The CHAIRMAN. A good deal has been burned over, I believe?

Mr. MEADE. The timber, a good deal of it has been cut, and it was burned afterwards.

The CHAIRMAN. Before it was burned it was cut over?

Mr. MEADE. Yes.

Mr. RYAN. Cut over for pine, was it?

Mr. MEADE. For the timber that was on it.

The CHAIRMAN. The spruce wood was not cut out of it very largely, was it?

Mr. MEADE. Yes; everything was cut that was on there.

The CHAIRMAN. We saw great tracts of land where the spruce timber was still standing and had been burned, I thought.

Mr. MEADE. No; there are some cuttings over here that they left the spruce timber on.

The CHAIRMAN. Who cut it over?

Mr. MEADE. I suppose it was Cook & O'Brien.

The CHAIRMAN. Did they cut out the pulp wood?

Mr. MEADE. I don't know. They cut out some, I suppose. There is some left.

Mr. RYAN. What spruce they did take out they evidently took it out for logs?

Mr. MEADE. I think so.

The CHAIRMAN. How does this spruce timber forest around here average with the spruce forests of this county?

Mr. MEADE. It is a good average.

The CHAIRMAN. It is a little above the average, isn't it?

Mr. MEADE. Not what I have been through.

The CHAIRMAN. Is not this exceptionally good spruce forest?

Mr. MEADE. Yes; this part of Lake County is the only part of the county that I have been in. I do not know how it is farther east of here.

The CHAIRMAN. How far does this spruce forest extend, so far as you know?

Mr. MEADE. About 18 miles north and about 6 miles south of here that I have been through.

The CHAIRMAN. Do you know how far east and west?

Mr. MEADE. No, sir; I know that it goes—I have been east of here 5 miles.

The CHAIRMAN. What is your estimate of the number of cords per acre it would yield of pulp wood?

Mr. MEADE. I could not give that—not on an average of the whole thing. I have not noticed it enough.

The CHAIRMAN. The spruce forest that we walked through near this camp this afternoon, what would you say was the average there?

Mr. MEADE. That would be pretty hard to give with the way I looked at it. I would not want to be quoted as giving an average there.

The CHAIRMAN. If you were going to estimate it, how would you go at it?

Mr. MEADE. I would start in at some corner and estimate it by forties.

The CHAIRMAN. Count the trees?

Mr. MEADE. Yes; I would average up the trees on certain parts of it.

The CHAIRMAN. Have you any idea as to how much it would yield?

Mr. MEADE. What I saw along where I came, I should judge it would average about 25 cords per acre.

The CHAIRMAN. Of spruce wood?

Mr. MEADE. Yes.

The CHAIRMAN. What other trees grow here?

Mr. MEADE. Tamarack and balsam and poplar.

The CHAIRMAN. Any pine?

Mr. MEADE. Some pine. We saw a few pine coming through.

The CHAIRMAN. Spruce comes first, does it?

Mr. MEADE. Yes, sir.

The CHAIRMAN. Tamarack second?

Mr. MEADE. Yes, sir.

The CHAIRMAN. Poplar and balsam third?

Mr. MEADE. I should say balsam.

The CHAIRMAN. Then poplar?

Mr. MEADE. Yes.

Mr. RYAN. There was a good deal of birch, wasn't there?

Mr. MEADE. There is quite a little birch along through here. I think there is more birch than poplar.

The CHAIRMAN. We went over quite a number of roads that had evidently been cut out for hauling timber to the river.

Mr. MEADE. Yes.

The CHAIRMAN. But no timber has been cut out around here for logging purposes where we went through this afternoon?

Mr. MEADE. Not where we went up in through here, no.

The CHAIRMAN. That is what you call a virgin forest?

Mr. MEADE. It has been cut in. There has not been anything cut, only logging roads in it.

The CHAIRMAN. How large are those trees on the average in your opinion—the spruce trees?

Mr. MEADE. They would run from 8 to 10 inches, I should judge, taking everything that would cut into pulp wood.

The CHAIRMAN. How high would they be, how tall?

Mr. MEADE. Thirty-five to 40 feet, I guess.

The CHAIRMAN. Wouldn't they average more than that?

Mr. MEADE. No, not taking the small stuff with the big stuff, I think.

The CHAIRMAN. Have you any idea as to how old they are?

Mr. MEADE. No, sir.

The CHAIRMAN. How long have you been in this country?

Mr. MEADE. In Minnesota since last February.

The CHAIRMAN. Where did you come from?

Mr. MEADE. Michigan.

The CHAIRMAN. Have you been a cruiser in Michigan?

Mr. MEADE. Yes, sir.

The CHAIRMAN. In cruising there do you find very much spruce?

Mr. MEADE. Not so awful much.

Mr. RYAN. What part of Michigan?

Mr. MEADE. Northern Michigan, Gogebic County.

The CHAIRMAN. The spruce there is all scattered spruce, isn't it?

Mr. MEADE. Mostly.

The CHAIRMAN. You do not find much thick, clear spruce?

Mr. MEADE. In places you will find a good deal.

Mr. RYAN. What is the prevailing timber?

Mr. MEADE. Hemlock and maple.

Mr. RYAN. The pine has been cut out?

Mr. MEADE. Yes, sir.

The CHAIRMAN. How much hemlock have you found in this State?

Mr. MEADE. I haven't seen any.

Mr. RYAN. The large spruce that we saw to-day in coming through here; do you call that upland spruce?

Mr. MEADE. I do not know what you would call it. The land appears to me to be high, most of it, still I don't know whether you would call it upland or lowland.

The CHAIRMAN. It grows in rather swampy ground after all, whether it is high or low.

Mr. MEADE. I could not say it would be swampy. I would call it fair land.

The CHAIRMAN. Isn't the most of it pretty wet land?

Mr. MEADE. No.

The CHAIRMAN. Wasn't it very wet where we walked this afternoon?

Mr. MEADE. In one place.

The CHAIRMAN. Wasn't the ground very wet and soggy all the way up?

Mr. MEADE. Yes; right after the rain.

The CHAIRMAN. There has not been very much rain, has there?

Mr. MEADE. Quite a good deal in the last few days.

Mr. RYAN. Has your experience been that spruce grows larger in the upland than in the swamps?

Mr. MEADE. I suppose it would grow a little larger.

Mr. RYAN. Have you ever had any experience in regard to the effect on the timber from draining the swamp land; whether or not it affects the tree?

Mr. MEADE. No.

The CHAIRMAN. Do they have any of what they call muskeg in Wisconsin?

Mr. MEADE. In places; yes, sir.

The CHAIRMAN. Do they call it muskeg there?

Mr. MEADE. No; I don't believe I ever heard it called that. We get low, swampy lands, though, and floating.

The CHAIRMAN. Have you had occasion to become very familiar with the muskeg country over here?

Mr. MEADE. Yes; I have been through some of it—not that I am familiar with it.

The CHAIRMAN. Is there much muskeg right around in this part of the country?

Mr. MEADE. No; not that I have seen.

Mr. RYAN. What about the forest fires that they have around this section of country? Will you tell us what you know about that?

Mr. MEADE. How do you mean?

Mr. RYAN. To what extent they have occurred.

Mr. MEADE. I can not say. I don't know anything about that. I have not been over any of the burned timber to speak of.

The CHAIRMAN. You saw to-day quite a considerable territory that had been burned over in different places, didn't you?

Mr. MEADE. Yes, sir.

The CHAIRMAN. Some of it with a good deal of spruce standing on it?

Mr. MEADE. There was some spruce, not what I would call a great deal. There were some places where it burned in a little.

The CHAIRMAN. It looked to me like a very large amount. It is pretty thick over here.

Mr. MEADE. In some places it ran in a little.

The CHAIRMAN. How far are we from Lake Superior?

Mr. MEADE. About 18 miles.

The CHAIRMAN. In what direction from Duluth?

Mr. MEADE. Northeast.

The CHAIRMAN. Would the pulp wood that would be cut here go to market through Duluth naturally?

Mr. MEADE. I could not say.

The CHAIRMAN. What would be your judgment about it?

Mr. MEADE. I suppose the railroad going to Duluth, that it would go that way. Still, I don't know. It could be taken out to the lake.

The CHAIRMAN. Where?

Mr. MEADE. Anywhere here with a track. Of course railroads are not in here now.

The CHAIRMAN. Are there any harbor facilities up along here?

Mr. MEADE. Two Harbors is only about 18 miles south of where we are.

The CHAIRMAN. It might be taken down to Two Harbors if they had a railroad running there?

Mr. MEADE. Yes, sir.

The CHAIRMAN. Could it be taken down there by water transportation?

Mr. MEADE. No.

The CHAIRMAN. Can you drive pulp spruce down these rivers here?

Mr. MEADE. Yes, sir; some of them. They are driving spruce on the Cloquet from the dam.

The CHAIRMAN. From the Brown camp, you mean?

Mr. MEADE. Yes.

The CHAIRMAN. Where would that go to—down past Colquet?

Mr. MEADE. Yes; they could drive it down. I have never been down the river, but I think they could drive it down there. They hoist it out at Brimson now. I guess they could drive it all the way. I have never been down through there.

Mr. RYAN. Quite a considerable portion of the timber is lost here by forest fires, isn't it?

Mr. MEADE. I don't know.

The CHAIRMAN. We saw, I believe, this morning a considerable quantity of logs in the Cloquet River at different points. Were those logs resting while being driven down the river?

Mr. MEADE. I suppose so; yes, sir.

The CHAIRMAN. Do you know where they would be destined for naturally?

Mr. MEADE. I suppose they go to Brimson. They are hoisting them out of the river there now.

The CHAIRMAN. They have a station at Brimson where they load the logs onto the railroad cars?

Mr. MEADE. Yes, sir.

The CHAIRMAN. Were you with us when we saw that operation this morning, about 6 o'clock?

Mr. MEADE. No.

The CHAIRMAN. Are you pretty familiar with spruce forest in Minnesota, or have you had time to become very familiar with it?

Mr. MEADE. No. Still I have seen enough of it since I have been here. I have seen quite a lot of it.

The CHAIRMAN. Is it similar or generally different character from the spruce in Wisconsin?

Mr. MEADE. No; it is not different that I know of; it runs about the same character of spruce.

The CHAIRMAN. Did you see any spruce forest in Wisconsin similar to the spruce forest near here?

Mr. MEADE. Not as large an amount of spruce. What I mean is the spruce is about the same quality in Wisconsin as it is in Minnesota.

Mr. RYAN. The trees are not quite as large?

Mr. MEADE. There is not so much spruce in Wisconsin that I have seen.

The CHAIRMAN. Don't these spruce trees in Wisconsin that are scattered through the forest grow much more rapidly than those here?

Mr. MEADE. That I could not say.

The CHAIRMAN. You never have figured upon the comparative ages?

Mr. MEADE. No, sir.

The CHAIRMAN. Do you have any spruce forest in Wisconsin—any large number of acres in one place in the low ground?

Mr. MEADE. Not that I have seen.

The CHAIRMAN. The testimony that has been given to us in Wisconsin is to the effect that the spruce there grows in the forest, scattered generally, and that there is not very much of it left. Do you think that is correct?

Mr. MEADE. I could not say. I have only been through the northern part of Wisconsin. The lower part I do not know how it is.

The CHAIRMAN. This committee recently traveled through the northern part of Wisconsin and into the upper peninsula of Michigan looking for spruce forest, and that seemed to be the information we had. You get solid forest here in many places, don't you?

Mr. MEADE. It is mixed; just as you have seen it to-day.

The CHAIRMAN. What proportion of the forest to-day in that that we went through last this afternoon would you say was spruce?

Mr. MEADE. I could not give you that.

The CHAIRMAN. Didn't you make us an estimate down there that the spruce would run 30 cords to the acre?

Mr. MEADE. What I saw of it in the places that you asked me.

The CHAIRMAN. Twenty to 25 cords to the acre?

Mr. MEADE. Yes.

The CHAIRMAN. You made an estimate of 20 cords of spruce, 1 cord of balsam, and 6 of poplar.

Mr. MEADE. Tamarack. I did not give you poplar at all. That was only a rough estimate. I did not go through it.

The CHAIRMAN. It was your opinion that it would go in about those proportions?

Mr. MEADE. Yes.

The CHAIRMAN. In some places there is very little of anything but the clear spruce in spots?

Mr. MEADE. Yes.

The CHAIRMAN. Then you come to a spot where there is more tamarack?

Mr. MEADE. Yes; I suppose there are places of that kind.

The CHAIRMAN. What is the general character of the timber along here, to the best of your opinion, and how does it run? What are the trees and what is the character of the ground that they are on?

Mr. MEADE. I don't understand you.

The CHAIRMAN. If you were going to describe the forest to some one who knew nothing about this forest, what would you tell them that the forest was?

Mr. MEADE. High or low or what?

The CHAIRMAN. High or low.

Mr. MEADE. I would call this high ground.

The CHAIRMAN. What is the forest composed of?

Mr. MEADE. Spruce, tamarack, balsam, pine; in places birch and poplar.

The CHAIRMAN. I would not know from that whether it was 90 per cent poplar.

Mr. MEADE. I could not say. Spruce runs the most on the average.

The CHAIRMAN. Where does it generally grow, on the higher ground or the low ground?

Mr. MEADE. It grows on both. Spruce will grow on low ground or high ground.

The CHAIRMAN. It makes no distinction up here about the ground at all in your opinion?

Mr. MEADE. No; I don't think it does.

The CHAIRMAN. Just as likely to find spruce on the higher ground and pine on the lower ground?

Mr. MEADE. No; you find pine usually on high ground.

The CHAIRMAN. How about the tamarack and poplar; just as likely to find poplar on the low ground?

Mr. MEADE. No; you usually find the poplar on high ground.

The CHAIRMAN. Would you be more likely to find the tamarack and the spruce on the wetter ground?

Mr. MEADE. No; I don't think it; from what I have seen of it, the spruce is scattered all over it. You will find some in low ground, but the best would be on what I would call high ground.

Mr. RYAN. You won't find much of anything on the lower swampy ground except spruce, tamarack, and balsam?

Mr. MEADE. No.

The CHAIRMAN. Did you see Mr. Norris examine a tree about 10 inches in diameter that had been cut down to-day for the purpose of trying to find out its age?

Mr. MEADE. Yes, sir.

The CHAIRMAN. Did you hear him state, after counting the rings, that it was over a hundred years old?

Mr. MEADE. Yes.

The CHAIRMAN. Have you ever examined the rings on these trees to see how old they are?

Mr. MEADE. No, sir.

Mr. RYAN. Do you think that the age of a tree can be determined in that manner?

Mr. MEADE. I don't know.

The CHAIRMAN. I wish to extend to you the unanimous thanks of this committee and all of its attachés.

STATEMENT OF THOMAS MCGREGOR.

(Sworn and examined by the chairman.)

The CHAIRMAN. Give us your full name.

Mr. MCGREGOR. Thomas McGregor.

The CHAIRMAN. How long have you been in Minnesota?

Mr. MCGREGOR. About five years.

The CHAIRMAN. In the woods?

Mr. MCGREGOR. Yes, sir.

The CHAIRMAN. Are you familiar with the forests?

Mr. MCGREGOR. No; I can not say that I am. I have been around a considerable, too.

The CHAIRMAN. Have you been around this part of the country?

Mr. MCGREGOR. No, sir; I never was up in this part before. The biggest part of my travels in the woods have been in St. Louis County.

The CHAIRMAN. Have you been a cruiser?

Mr. MCGREGOR. Well, I don't know as you could call me a cruiser. I have been out with cruisers.

The CHAIRMAN. Have you been connected with lumber camps?

Mr. MCGREGOR. I have been cooking around lumber camps; not much outside work.

The CHAIRMAN. Have you been around with cruisers?

Mr. MCGREGOR. I have for the last year; yes, sir.

The CHAIRMAN. Where?

Mr. MCGREGOR. In St. Louis County.

The CHAIRMAN. Are you familiar also with the trees?

Mr. MCGREGOR. Yes, sir.

The CHAIRMAN. You can tell a spruce tree from a poplar?

Mr. MCGREGOR. Yes, sir.

The CHAIRMAN. Or a balsam?

Mr. MCGREGOR. Yes, sir.

The CHAIRMAN. What is the prevailing timber over there in the forest?

Mr. MCGREGOR. I should say, where I have been, it is pine.

The CHAIRMAN. White or Norway or jack?

Mr. MCGREGOR. I could not say as to that, but there is a great deal of white and some Norway.

The CHAIRMAN. Is there more or less spruce scattered all over that forest?

Mr. MCGREGOR. Yes, sir.

The CHAIRMAN. Large spruce or small stuff?

Mr. MCGREGOR. I have seen some pretty large; I have seen it 18 inches through or larger.

STATEMENT OF CHARLES B. CANNON, OF BRIMSON.

(Sworn and examined by the chairman.)

The CHAIRMAN. How long have you been up in this country?

Mr. CANNON. I was born and raised in Duluth. Twenty years old.

The CHAIRMAN. How long have you been acquainted with the forests?

Mr. CANNON. A year and a half.

The CHAIRMAN. What do you do in connection with the lumbering operations?

Mr. CANNON. I have been connected with the timber department of this company as a clerk.

The CHAIRMAN. With the Duluth and Iron Range Company?

Mr. CANNON. The Oliver Iron Mining Company.

The CHAIRMAN. How long?

Mr. CANNON. I worked four months in the surveying department, and for a year I have been connected with the timber department.

The CHAIRMAN. What does that department do?

Mr. CANNON. Attends to the cutting of the timber for the Oliver Company.

The CHAIRMAN. That is the cutting of the timber? Do they keep track of the timber that is not to be cut?

Mr. CANNON. They have lands that are plotted that they have not cut yet.

The CHAIRMAN. Are they cutting any timber themselves?

Mr. CANNON. Carrying on small operations at Colrain.

The CHAIRMAN. Do they sell stumpage at all?

Mr. CANNON. I don't know.

The CHAIRMAN. Are they holding most of their timber at present?

Mr. CANNON. Yes, sir.

The CHAIRMAN. For possible use in connection with the iron mining business?

Mr. CANNON. Most likely; yes, sir.

The CHAIRMAN. That is to say, they are not absolutely certain but that they may need this timber in connection with the mining?

Mr. CANNON. Yes, sir.

The CHAIRMAN. And in connection with harbor facilities, etc.?

Mr. CANNON. Yes, sir.

Mr. RYAN. What sort of timber are they cutting at Colrain?

Mr. CANNON. Mining timber.

The CHAIRMAN. Where is Colrain?

Mr. CANNON. Up on the range.

Mr. RYAN. They do not get out any timber for pulp wood?

Mr. CANNON. No, sir.

The CHAIRMAN. We saw a considerable number of logs in the Cloquet River this morning. Do they belong to the Oliver Mining Company?

Mr. CANNON. Yes, sir.

The CHAIRMAN. Were they cut by the Oliver Mining Company, do you know, or by the Cook & O'Brien Company?

Mr. CANNON. By the Cook & O'Brien Company, so far as I know.

The CHAIRMAN. Do you know how long the Oliver Mining Company has owned this ground around here that was formerly owned by the Cook & O'Brien Company?

Mr. CANNON. No, sir.

The CHAIRMAN. You know something about it, don't you?

Mr. CANNON. So far as I know, they have owned it for about two years.

The CHAIRMAN. Do you know how much timber land they are supposed to own?

Mr. CANNON. No, sir.

The CHAIRMAN. Do you know how much they bought from the Cook & O'Brien Company?

Mr. CANNON. No, sir.

The CHAIRMAN. Do you have any idea?

Mr. CANNON. No; I have never had an opportunity to know and never tried to find out.

ST. PAUL, MINN., *Monday, October 26, 1908—10 a. m.*

STATEMENT OF FREDERICK W. WEYERHAEUSER, OF ST PAUL, MINN.

(Examined by the chairman.)

The CHAIRMAN. We are a committee appointed by the House of Representatives for the purpose of investigating in regard to the present and future of pulp paper, including in its relations the situation concerning the forests and the future supply of pulp wood. We have been told by a great many people both in the East and the West that probably there was no man in the country whose judgment would be worth more than yours, and we would like to hear your impressions as to the subject.

Mr. WEYERHAEUSER. I do not know any more about the timber country than those men that travel around there.

The CHAIRMAN. You speak with modesty, but we would like to have your impressions, as far as you can give them, for the benefit of the present and succeeding generations, of the forestry conditions.

Mr. WEYERHAEUSER. Pulp wood I could not tell you much about because I never looked after that much of any. There is lots of pulp wood. How much there is has never been estimated by us. I have heard a good deal about it. They are paying us now a small amount per cord for it, if it is handy to get out. If it was hard to get out they would not give us much of anything. I don't know what you mean by pulp wood. If you mean the dry timber which is standing which can be used for pulp, that is one thing. If you mean that which is growing, I can not tell you much about it. I can tell you this, there is very much more timber than folks have an idea of and it will last longer. When I commenced lumbering fifty-two years ago I went up on the Black River, a stream that flows into the Mississippi at La Crosse. I was manufacturing at La Crosse. Some men that were in the business for years asked me where I expected to get my supply. I told them I expected to get it on the Black River. They said, no, the Black River is ausgespielt, played out. We were taking about 40,000,000 feet a year on Black River, and then increased

it to 200,000,000 a year. That is fifty-two years ago. We are getting logs out of Black River yet, a few. According to the common report we never had timber enough to last eleven years, and it would all be cut in ten years. You ask a man how long the timber would last and he would say ten years. It depends on what kind of timber you cut. We did not use to take any but that that was 16 inches at the top and sound, and now we are taking 6 inches at the top and some 4 inches. Timber has increased wonderfully and keeps increasing as it gets valuable. You make it valuable and it will last a long while, but make it cheap and we will get through with it sooner. There is lots more timber than people think.

The CHAIRMAN. You say you cut so much in the Black River territory at one time and are cutting some there now. I suppose, very little now.

Mr. WEYERHAEUSER. This last year, I guess, we did not do anything. There has always been a few logs coming out of Black River. We increased the cut from 40,000,000 to 200,000,000.

The CHAIRMAN. In course of time it will all be cut off.

Mr. WEYERHAEUSER. Yes; every time you cut a tree down there is a tree less.

The CHAIRMAN. What we want to do, if possible—and I do not know that it is possible—is to find some plan that we can recommend that will provide timber for the future.

Mr. WEYERHAEUSER. The main thing is to make laws to prevent the fires. I have been reading about California and Washington. We suffered but very little there, and see how timber has been burned this last year in Wisconsin and Minnesota and within the last eight weeks.

The CHAIRMAN. We went through in Wisconsin over a hundred miles of burned forest.

Mr. WEYERHAEUSER. You have an idea, then, what it means when a forest is on fire. The only way to prevent it is to cut all the dead trees down. It is the standing tree that scatters the fire. It gets on fire on top and the wind blows it 5 or 6 or 7 miles. After the trees are cut down and they are lying on the ground they make some fire, but not much. If the trees are standing they scatter fire everywhere. Then make a law that each one shall burn his rubbish before it gets dry. There will be pieces left like my arm, but they won't burn; they don't make much fire. It is pretty hard for one man to do. If one does it and the other does not, it doesn't do much good.

The CHAIRMAN. Do you think it is possible for the owners to protect the forests from fire without the aid of the State or Government?

Mr. WEYERHAEUSER. The State ought to help and ought to make laws for it. We would have raised some timber or tried to raise it, but a man can not do it on account of the taxes. It takes two hundred years to raise a good pine tree. You can raise a white pine tree in eighty years that is merchantable, but full grown it takes about two hundred years. The way they are taxing us, we can not do it. We have to pay taxes every year on our full crop. We pay taxes on the land and then pay for the standing timber, and you can not pay that more than fifty or sixty times during your lifetime, can you? A farmer has an acre of wheat, he pays what his land is worth. He is not taxed for that wheat. When he sows it in April and May, it isn't worth much. He pays on the land. The lumberman pays taxes on his timber every year, besides on the value of the land.

The CHAIRMAN. Have you any idea as to what the taxes run per acre in this State on good forest land?

Mr. WEYERHAEUSER. Yes; I would say on timber that has not been logged over \$5 or \$6 or \$10 in some counties an acre.

Mr. RYAN. An acre?

Mr. WEYERHAEUSER. Yes.

Mr. RYAN. That is in addition to the land tax?

Mr. WEYERHAEUSER. That is included with it. And the taxes are governed largely by the local people. We had school districts where there were but two scholars, but we had to build a schoolhouse and keep the school up for two children. We could have sent them to Chicago and boarded them at the best hotel for the same money.

The CHAIRMAN. If some satisfactory law could be passed in reference to taxes and in reference to fire protection, do you think that the owners of a good deal of this forest land that is not valuable for farming would endeavor to reforest it?

Mr. WEYERHAEUSER. Yes; we have been giving some land away to the State of Wisconsin and to other States. I do not know whether we have given this State much or not. We have given it or promised it. In place of giving it away we would try to see if we could not raise trees as well as the State, if we could. We give it for park purposes.

The CHAIRMAN. That means to raise forests?

Mr. WEYERHAEUSER. Yes; that is what we give it to them for, for park purposes. If they do not use it for that, it comes back to us.

The CHAIRMAN. In some of the eastern portions of the country, when they cut trees, they only cut large trees and leave the others to grow larger.

Mr. WEYERHAEUSER. That is true. We used to do that, but how long does it take until a fire comes in and they are gone. We had this last month which we know of, and how much more we do not know of, over 12,000 acres burned, what we call green timber.

The CHAIRMAN. Where was that?

Mr. WEYERHAEUSER. In Wisconsin.

Mr. RYAN. Did the green timber burn up there?

Mr. WEYERHAEUSER. Yes, sir; that is the report we are getting now. That was near Phillips.

The CHAIRMAN. If you had sufficient fire protection, as good in the forest as you have in the city here, do you think that owners then could afford to cut only the larger timber and let the smaller sized timber stay there to grow?

Mr. WEYERHAEUSER. I am afraid of that. We never can get it as good as we get it in the city. All we could do is to make fire paths through the timber so that we could get there quick and probably could put it out, but we could not get it so that we would have water. This year there wasn't any water to put a fire out with. It has been very dry until lately. If the State taxes were fixed so that the timber would not have to pay anything for ten, twenty, thirty, or forty years, until it has a value, and then put a good tax on it, men would rather raise timber. If you have to pay taxes right now and you know you have got to wait eighty years before you get anything, you wouldn't put your money into it.

The CHAIRMAN. Do you think the State could afford to buy a lot of this land and make forest of it?

Mr. WEYERHAEUSER. They won't do it.

The CHAIRMAN. What will we do after a while? You say there is lots of timber, and yet a hundred years is only a short time, you know.

Mr. WEYERHAEUSER. That is right.

The CHAIRMAN. You have seen a large share of the forest disappear since you came on the face of the earth.

Mr. WEYERHAEUSER. Yes; I have been at it fifty-two years.

The CHAIRMAN. What will they do for timber after a while?

Mr. WEYERHAEUSER. Have you ever seen that when one thing disappears something else is substituted? I have traveled through Germany and France and some of those countries, and when I looked out of the car window I have thought I was up in Chippewa in the pines. They have been raising it there. The Government contends that when you cut a tree down you should plant another tree. A forester comes around and tells you how to cut the tree and what kind of logs to make out of it, and you take it to a sawmill and get it sawed there and they know how.

Mr. RYAN. There is not so much waste there?

Mr. WEYERHAEUSER. No; no waste at all.

Mr. RYAN. Is that the law in France?

Mr. WEYERHAEUSER. I wouldn't say. It is in Germany. The chips and roots are all gathered up. When you go through the forest it is just as clean as can be, because the limbs that break off the poor folks take home and burn.

Mr. RYAN. Isn't that because the timber is scarce and that makes it valuable, and that is why they take such extraordinary precautions?

Mr. WEYERHAEUSER. Yes, and labor is cheap. That has something to do with it.

The CHAIRMAN. You have doubtless thought the matter over a good many times in a way. What has your opinion been as to the future of the forests of this country?

Mr. WEYERHAEUSER. I think we ought to protect the forests. We ought to save the timber. There is no question about it. But a thing is never saved until it has a good value. Pulp wood nobody thought of saving, because it has not had any value so far.

The CHAIRMAN. Pulp wood has been selling in Minnesota, as a rule for the last year, for about \$6, six and a quarter a cord, and down in Wisconsin spruce pulp wood is \$11 a cord, owing to the freight.

Mr. WEYERHAEUSER. What does that give the man who gets it out?

The CHAIRMAN. Eleven dollars a cord pays him a mighty high price.

Mr. WEYERHAEUSER. The one that cuts it gets six.

The CHAIRMAN. That is different. But down there it is eleven. If the man had it there, he could get eleven for it there.

Mr. WEYERHAEUSER. If he would get it to the pulp-wood mills.

The CHAIRMAN. Pulp wood will not be as high in the next year in my opinion as it has been for the last year, because the mills are all stocked up heavily with pulp wood.

Mr. WEYERHAEUSER. If anybody wants to cut pulp wood, we tell them we charge so much, say a dollar or two a cord, and they go in and work until they get tired.

The CHAIRMAN. These Wisconsin mills over a year ago paid \$14 a cord for pulp wood.

Mr. WEYERHAEUSER. That is only lately.

The CHAIRMAN. That is when they bought 50,000 cords down in Quebec, 1,400 miles away, and had to freight it to their Wisconsin mills; but that shows, does it not, that pulp wood is increasing in value at the centers where it is used?

Mr. WEYERHAEUSER. Yes.

The CHAIRMAN. And is likely to increase as the quantity becomes scarcer?

Mr. WEYERHAEUSER. Yes; you can raise spruce in about twenty years. You get a pretty fair tree at twenty or twenty-five years.

The CHAIRMAN. Not up here. We have been taking the age of trees, and I have one an inch in diameter that is fifty years old, another 10 inches just about a hundred years.

Mr. WEYERHAEUSER. I can not understand that. You may have it.

The CHAIRMAN. We are collecting samples of all of these spruce trees for the purpose of determining their ages, and on the high land the spruce grows much more rapidly.

Mr. WEYERHAEUSER. Oh, yes.

The CHAIRMAN. But a large share of the Minnesota forests are on the low ground.

Mr. WEYERHAEUSER. That never amounts to anything.

The CHAIRMAN. We find that it gets to be 4 and 5 and 6 inches in diameter very often in a hundred years.

Mr. WEYERHAEUSER. You take a spruce tree where everything is favorable for it and it makes quite a tree in from twenty to twenty-five years.

The CHAIRMAN. That would be a reforesting then, because spruce can be used, of course, when it is not very large.

Mr. WEYERHAEUSER. For pulp wood, yes.

The CHAIRMAN. Five-inch pulp wood is a good size.

Mr. WEYERHAEUSER. Yes.

Mr. RYAN. You think, under favorable conditions, you could raise a spruce forest in twenty-five years?

Mr. WEYERHAEUSER. I always had an idea it would make quite a tree in twenty-five years.

Mr. RYAN. About how large?

Mr. WEYERHAEUSER. I would say it would make 5 or 6 inches or 8 inches. That is all you want for pulp.

The CHAIRMAN. In twenty-five or thirty years, probably, then it could be taken out in part, the larger trees cut out?

Mr. WEYERHAEUSER. Yes; that was my idea all the time. If I was raising anything at all I would raise spruce. I would not try to raise pine because it takes too long.

The CHAIRMAN. Isn't there a good deal of this land up here that is so rocky that it is not worth much of anything except to grow forests?

Mr. WEYERHAEUSER. Yes, sir.

The CHAIRMAN. If the State had that or if the State would protect the private owner, some one could afford probably to grow spruce on that.

Mr. WEYERHAEUSER. Yes; we have some land which we will sell for \$2 an acre, and it will raise pretty good timber. It is either stony or sandy, not good for farming.

The CHAIRMAN. Of course, there is an immense stock of timber in the far west.

Mr. WEYERHAEUSER. Yes; that is where I have been thinking our timber would come from in the future. It is coming from there now.

The CHAIRMAN. But when the whole country gets to using that timber, won't that go pretty fast?

Mr. WEYERHAEUSER. It would, providing timber was not worth more than it is now. When timber is worth more money they will save it. You see that concrete and iron takes the place of timber a great deal.

The CHAIRMAN. But the population is increasing also.

Mr. WEYERHAEUSER. Yes, that is right. You have got to have a crib for everyone that is born and a box when you carry him out.

The CHAIRMAN. What proportion of the white pine of the country do you think has been already cut—of all the white pine in the country?

Mr. WEYERHAEUSER. Probably 80 per cent. There is a good deal of white pine left in Idaho and those places. I know when I lived in Pennsylvania we cut down the finest kind of trees, oak and chestnut and some pine, not much pine, and we would make a rolling bee and roll out the logs in piles and set fire to them and burn them up to get rid of them. It was awful mean, and we ought to have been punished for it, but we had to have a patch for crops. We sold the ashes and got something for them.

The CHAIRMAN. That would be done again if the same conditions existed.

Mr. WEYERHAEUSER. Yes; you have to take the young timber into consideration. It is very careless the way timber is burned up.

The CHAIRMAN. Are you familiar with the Canadian forests?

Mr. WEYERHAEUSER. I have been there some, yes; I could not say a great deal about it. There is lots of timber in Canada.

The CHAIRMAN. Does the timber grow pretty well far north and grow to good size?

Mr. WEYERHAEUSER. Yes, as far as I went. It grows slow. The farther north the slower it grows. The forests in the north look healthy and all right. Washington and Oregon is where our timber is to come from, and Idaho has a good deal of timber.

The CHAIRMAN. Is there a good deal of timber in the Panhandle in Idaho?

Mr. WEYERHAEUSER. Yes; first-rate timber.

The CHAIRMAN. Is there much spruce out there?

Mr. WEYERHAEUSER. No; not that I know of. There is some, not a great deal. Where the fires have gone over, there is lots of lumber killed that will make pulp for a few years until it is rotten.

The CHAIRMAN. That is over in Wisconsin?

Mr. WEYERHAEUSER. Yes, sir.

The CHAIRMAN. Is that likely to be cut for wood pulp?

Mr. WEYERHAEUSER. I guess they cut all they can for saw logs, and what is left they cut for pulp wood. Pulp wood is a good deal like other crops; they all go in and make it and there is no value to it. Then comes a year when they don't produce any and the value is very high.

The CHAIRMAN. Do you have any idea as to what the effect will be of draining off the swamps in Minnesota?

Mr. WEYERHAEUSER. Yes; it will be all right. That will help timber and everything else.

The CHAIRMAN. You think that will do the timber good?

Mr. WEYERHAEUSER. Yes; get the water away from it.

The CHAIRMAN. Some of the gentlemen whom we have seen have thought it might hurt the timber.

Mr. WEYERHAEUSER. Cypress it might, but I don't think it would hurt anything that grows up here. Even water elm grows better when it is not wet all the time.

Mr. RYAN. Do you think the spruce and pulp wood that is now growing in the swamp land would do better if the swamps were drained?

Mr. WEYERHAEUSER. It depends on what is under the swamp. If it is rock it would not. If it is good soil it would. Some of the swamps have nothing but rock under them when you get into them.

The CHAIRMAN. That is some of the so-called muskeg?

Mr. WEYERHAEUSER. Yes; I think it would help the timber.

The CHAIRMAN. On some of the muskeg we find in the center no timber at all, and then a little farther around some very small spruce, and then farther around some 4 to 6 inch spruce, and then on the higher ground larger spruce, and all intermixed with tamarack.

Mr. WEYERHAEUSER. You will find the timber is better where there is no water standing. Where there is standing water you can not raise timber. I think it would do it good to drain it.

The CHAIRMAN. That land that is good to raise grass on or crops on never will be profitable to raise forest on, I suppose.

Mr. WEYERHAEUSER. I don't know; it depends on what the lumber is bringing. If you keep lumber cheap it won't be worth much, but when lumber gets high, like last year and year before last, you can raise timber, if I am right that you can raise good spruce in twenty-five years. I may be mistaken about that. I never tried it. It is my idea that twenty to twenty-five years would make a fair spruce tree.

The CHAIRMAN. Some of the people who have been before us have thought they could raise good spruce in twenty to thirty years for pulp wood.

Mr. WEYERHAEUSER. Yes; we have trees from the South which are not more than 25 years old, about 14 inches through, which grew where they had been building railroads before the war, where there was a grade, and the railroad never was finished. We know there was not any timber standing there, and we are cutting pretty good-sized timber off of the right of way. It pays better to raise timber in the South than in the North. A tree will grow the year around except when it is very dry. Here it is only about six or seven months that a tree will grow.

The CHAIRMAN. There is not much spruce in the South, I suppose.

Mr. WEYERHAEUSER. No; there is not. It is yellow pine. It is good timber.

The CHAIRMAN. That long-leaved pine makes a great timber, and so does the loblolly pine.

Mr. WEYERHAEUSER. Yes; the short-leaved is the best for boards. For timber the long-leaved would be the best.

The CHAIRMAN. There is a good deal of timber left in the South, I suppose.

Mr. WEYERHAEUSER. Yes; lots of it.

The CHAIRMAN. Is there much hard-wood timber up in the northern country, outside of birch and poplar?

Mr. WEYERHAEUSER. No, sir; there is not.

The CHAIRMAN. Any real hard wood?

Mr. WEYERHAEUSER. We have pretty fair oak in Wisconsin, "blue oak," we call it. It has been pretty well cut. The brewers cut them to make staves.

The CHAIRMAN. That is pretty well gone?

Mr. WEYERHAEUSER. Pretty well gone.

The CHAIRMAN. How about the hard maple in Wisconsin?

Mr. WEYERHAEUSER. I guess there is some of that that is pretty fair. As a general thing, the maple in Wisconsin was real rotten. When you get in Michigan you find good maple. I know I have been in a sawmill in Wisconsin 150 miles from here and thought I could saw maple for flooring. When we came to log it, there wasn't much in it. We had a mine in Michigan and had to have fuel to keep the furnace going, and we used that.

The CHAIRMAN. Where do they make the hard-wood flooring now?

Mr. WEYERHAEUSER. Make it mostly out of maple in Michigan; some in Wisconsin, but not much. We had fine oak in Wisconsin, but that is pretty well cut where they could get to it. The hard wood in Wisconsin is much better than farther south.

Mr. RYAN. Where do they get the supply of what they call "northern white oak" that they make barrel staves from?

Mr. WEYERHAEUSER. In Wisconsin.

Mr. RYAN. There is a lot there now, is there?

Mr. WEYERHAEUSER. No; not now. Wherever the country was open the brewery men would go in and cut it to make staves.

Mr. RYAN. Where will they have to go for their supply?

Mr. WEYERHAEUSER. I don't know; I guess they get it from the South.

Mr. RYAN. They have cut some in the South?

Mr. WEYERHAEUSER. Yes.

The CHAIRMAN. Arkansas and Louisiana?

Mr. WEYERHAEUSER. Yes; and Mississippi has a good deal. I had a letter from there this morning. A fellow has a sawmill down there and he tells me there is splendid timber. If we want to raise oak trees we have to have five hundred years, so we won't raise many.

The CHAIRMAN. Do you think it is time that the Government took hold of the question, preparing for the future?

Mr. WEYERHAEUSER. Yes; I think it is. It ought to have been done long ago. The people will take care of it who own it when it is worth something. When you can buy stumpage for 50 or 75 cents, a tree is not worth much. When you have to pay about \$5 for stumpage it is worth something. See how much timber was burned in the South before it got to be worth something. As soon as timber gets to be worth anything they take care of it. It is just like owning a horse. If you have a valuable horse you take care of it, and if it is a scrub you don't care much about it.

The CHAIRMAN. If every farmer has potatoes, potatoes are very cheap; but it don't do on that account not to plant potatoes next year.

Mr. WEYERHAEUSER. No. I know when we have had to pay something to get them carried out of the cellar in the spring. It is the

same thing with lumber. They are taking pretty good care of the stumpage now.

The CHAIRMAN. We have seen an immense quantity of stuff lying on the ground and another immense quantity standing that was killed by the fire.

Mr. WEYERHAEUSER. Yes; certainly, that is true. What you see above the ground that has been cut down, there was not enough in it for a man to haul it out. We used to take logs which had 45 or 50 per cent merchantable in them, and finally we made our contracts 25 per cent merchantable, and I guess now we take what is 15 per cent merchantable. A man will not bother to haul logs out except he gets something for it. If you have to haul 900 feet and only have 100 of it merchantable, it don't pay you. The higher lumber comes the nearer it comes to paying. Then shingles are very cheap. There is no money in shingles. We used to take that stuff to make shingles out of, but there is nothing in it now. They make them too cheap.

Mr. RYAN. They come from the State of Washington?

Mr. WEYERHAEUSER. Yes, sir; California makes some shingles.

The CHAIRMAN. They are cutting down the great trees in California that have grown, maybe several thousand years.

Mr. WEYERHAEUSER. Yes; I do not see what they will do with them after they cut them down. I hope they won't cut down those nice trees. I know when I was over there I saw one—in the Yosemite, I think it was, or close by—a great big tree, and in one end of it was a hotel and in the other end a barn. You drive in with a yoke of oxen. I went through some of those trees with a couple of friends of mine on horseback, three abreast—go right through the tree. The fire had burned out a good deal of it, and the balance was cut out with an ax. How to make lumber out of that I don't know. We couldn't do it. Our machinery would not do it. I don't think those trees will be cut down, because when you look at them you think they are mountains. A fellow from Duluth bought them. What he bought them for I don't know.

The CHAIRMAN. Do you care to express any opinion as to the length of time it will take to eat up the Minnesota forest at the present rate?

Mr. WEYERHAEUSER. We have probably 15,000,000,000 of timber yet, and when we cut less than a million in the State it is very little. Last year they cut, I think, 800,000,000. I guess they cut, of pine, 800,000,000. What they cut of other woods I do not know.

Mr. RYAN. That is the total cutting?

Mr. WEYERHAEUSER. Yes, sir. In the last year 800,000,000 of pine. I would say Wisconsin has probably timber for about fifteen years in that way. Of course that won't supply the State. They are always finding a little more. They think it is no good, but, come to see it again, they think they had better cut it down anyhow. So we always get a little more. So far as an estimate goes, you can not make one. As I told you, on Black River we were cutting only about forty millions a year and then brought it up to two hundred and fifty millions, and have been doing it fifty years, and some fellows go in there now and get a little out.

Mr. RYAN. That has always been a large pine territory?

Mr. WEYERHAEUSER. Black River has 28 townships of pine and Chippewa River had 88; that is, tributary to the stream. That

is what we used to go by. When the railroads came in they carried off a great deal of timber and destroyed more from the fire than they carried off. Our timber would have lasted much longer if it had not been for the railroads. As long as we had to haul it to the streams 6 or 8 miles it was pretty expensive.

The CHAIRMAN. If we could have some law which could be enforced which would prevent railroad fires, would that be a great protection?

Mr. WEYERHAEUSER. Oh, yes; and the settler is careless. He gets up in the morning and has a little burning to do and that sets a fire, and he does not care about the next fellow, and the first thing the fire is running.

The CHAIRMAN. He would like to have the timber cleared off, wouldn't he?

Mr. WEYERHAEUSER. He would like to have his place cleared off from the brush. I don't know as he cares much about the next fellow.

The CHAIRMAN. Wouldn't he like neighbors?

Mr. WEYERHAEUSER. Some men like neighbors and others do not. I have sometimes in a new country found a fellow who wanted to sell out. I said, "What do you want to sell out for?" "Well, there are so many coming in here I don't like it; I am going to pull out." The State could help a great deal by reducing taxes on land which should be used for the purpose of raising timber or letting them have it without taxes, and the Government could do a good deal by enforcing laws. I have a letter from our man in Washington. It seems that they had hardly any fire there this year. Some six years ago we lost over a billion in one fire.

The CHAIRMAN. Of course, the trouble about doing away with taxes is that each local community has to have some money from taxation.

Mr. WEYERHAEUSER. That is right.

The CHAIRMAN. How would it be if the General Government should pay a bounty of so much per acre per year in the form of taxes to the local government to those who will raise forests?

Mr. WEYERHAEUSER. That would be all right on spruce until it gets to be 15 or 20 years old, and on pine give them 40 years.

The CHAIRMAN. Until, say, it would get large enough for the forestry department to say that it was time to cut it?

Mr. WEYERHAEUSER. That would be splendid.

The CHAIRMAN. The raising of timber for the future is necessary, not merely for the man who raises it, but for the people generally.

Mr. WEYERHAEUSER. Yes; there are not a great many who care for the people who are to come afterwards. Some do. As a general thing, the farmer won't care much about what comes after him.

The CHAIRMAN. The Government should care.

Mr. WEYERHAEUSER. Well, the Government might do it.

The CHAIRMAN. Of course, I do not undertake to say whether it could or not. That is the question.

Mr. WEYERHAEUSER. Let the Government buy the land at \$2.50 an acre, and the State should buy some and try and raise forests. In nearly all the old countries the forest is owned by the Government. That goes back many hundred years. The forest belonged to the state and a man could cut so much a year. The government had charge of it. That goes back probably a thousand years.

The CHAIRMAN. Suppose the General Government should undertake to buy a lot of the timber land up here which has been cut over, don't you suppose the price would be put up pretty high at once?

Mr. WEYERHAEUSER. Yes, they could make a price; say, the highest they would pay would be \$2.50 an acre. I guess they could get lots of land for two and a half an acre.

The CHAIRMAN. If the Government should undertake to raise a forest, would it be necessary to have large tracts or could it just as well be done in smaller pieces?

Mr. WEYERHAEUSER. It would be in large tracts because it would be easier to take care of it. I had a friend here who traveled in the forest up here. He came from somewhere in Austria. He had a sawmill over there. He cut 50,000,000 feet and shipped it all over the country, and he told me he had land enough so he could cut 50,000,000 feet a year, and that supplied his mill. It was where there was a good deal of rainfall.

Mr. RYAN. The forest would reproduce itself?

Mr. WEYERHAEUSER. Yes; he told me he was planting a good many. I think he paid a half a cent a tree to plant them.

The CHAIRMAN. Stick them in the ground behind a spade, I suppose?

Mr. WEYERHAEUSER. Yes.

The CHAIRMAN. I have done lots of it myself.

Mr. WEYERHAEUSER. I guess there is a great deal of that done in Norway and Sweden.

The CHAIRMAN. Does our spruce here grow as fast as the Norway spruce?

Mr. WEYERHAEUSER. I think it does, where it is favorably located. I do not know why it should not. Everything else grows as well here as anywhere.

The CHAIRMAN. I mean the species. The Norway spruce is a different species from our spruce. When I was a boy we used to think the Norway spruce was a better tree than the American white spruce.

Mr. WEYERHAEUSER. I guess it is. It may be firmer. I am not personally acquainted with it.

The CHAIRMAN. Is there any effort made by any of the timber owners up here now to save the timber where they have cut over—save what is left?

Mr. WEYERHAEUSER. Yes; where we have what we call green timber—where the fire has not gone through—we take care of that. Where the fire has killed it off we let it go; sell it for what we can get for it.

Mr. RYAN. You aim to cut it very clean when you cut through it now?

Mr. WEYERHAEUSER. We thought we cut it pretty clean, but found out we did not. The value has something to do with it. When we see a tree and think there is \$5 in that tree, or two or three, we take care of it. If we think it isn't worth anything, we let it go.

Mr. RYAN. You do not figure that it is worth \$5 now and may be worth ten in a few years?

Mr. WEYERHAEUSER. No; we take it down.

The CHAIRMAN. If it is worth anything you take it?

Mr. WEYERHAEUSER. Yes; if it is worth hauling.

The CHAIRMAN. That is because you are afraid if you leave it there it will burn?

Mr. WEYERHAEUSER. Yes; almost sure it will, some time or another. The last few years we have been logging, if we had timber adjoining timber that we had cut we would go and set fire to it as soon as the snow was gone, and the fires did not bother us much afterwards.

The CHAIRMAN. You would burn the slashings when they were green?

Mr. WEYERHAEUSER. Yes; and the Government has taught us how to do it. We have been buying some timber of the Government. They put in the contract that we have got to burn our slashings every year. It costs some money.

The CHAIRMAN. Where you cut that Government timber do you cut that clean?

Mr. WEYERHAEUSER. No; we leave so many trees to the acre for seed. They have men in there to look after it. Where they tell us to leave a seed tree we leave it.

The CHAIRMAN. That is in pine?

Mr. WEYERHAEUSER. Yes.

The CHAIRMAN. The Government forester selects the trees you are to leave?

Mr. WEYERHAEUSER. Yes.

The CHAIRMAN. That is in the Indian reservations?

Mr. WEYERHAEUSER. Yes.

The CHAIRMAN. Where they do that they figure, I suppose, upon taking care of it from fire.

Mr. WEYERHAEUSER. Oh, yes, sir.

The CHAIRMAN. But there is no use leaving any white pine unless you keep fire out.

Mr. WEYERHAEUSER. No.

The CHAIRMAN. Are you familiar with the Menominee Indian Reservation in Wisconsin?

Mr. WEYERHAEUSER. No, sir; that is in the eastern part, where the Government has been building a sawmill.

The CHAIRMAN. Yes.

Mr. WEYERHAEUSER. No; I am not.

The CHAIRMAN. They are going to try an experiment over there.

Mr. WEYERHAEUSER. Yes.

The CHAIRMAN. I tried to stop it, but finally I quit by having them change a lot of things in it.

Mr. WEYERHAEUSER. If they have the right kind of Indians there, all right. If the Indians are Indians, there will be fires.

The CHAIRMAN. That is an experiment being made by the Government, principally to instruct the white man at the expense of the Indians, isn't it?

Mr. WEYERHAEUSER. I don't know. We tried to get Indians to log for us, but they never were any good.

The CHAIRMAN. They do not have to rely upon Indians over there. They can take white men in.

Mr. WEYERHAEUSER. They may make a condition that the Indian does the logging.

The CHAIRMAN. The law provides that they shall give the Indians the preference as far as labor is concerned, but they are not required

to employ Indians, and if the Government is successful the Indians will have money enough without working.

Mr. WEYERHAEUSER. Are the Indians to get the net?

The CHAIRMAN. Yes; that is, all Indian forest; and Congress passed a law authorizing the Indian Department and the Bureau of Forestry to construct this sawmill and operate it out of any fund belonging to those Indians, and if it is profitable they get the benefit of it. If it is not, they get the experience, and so do our fellows.

Mr. WEYERHAEUSER. It ought to be profitable.

The CHAIRMAN. It may be a very good thing; that is, it may teach all of us something in reference to lumbering.

Mr. WEYERHAEUSER. Yes; that is right.

The CHAIRMAN. If the forests were practically exhausted to-day, with your wide experience and knowledge, what would you suggest as a method to reproduction?

Mr. WEYERHAEUSER. It depends on what kind of land it is and where it is and how valuable it is. The portion of Germany where I came from has not much timber. It was all timber at one time—heavy oak. It is all gone. They do not use lumber, hardly ever.

The CHAIRMAN. Supposing the forests of the country to be practically exhausted.

Mr. WEYERHAEUSER. I would commence to try and raise some; do just what the Government has been doing—try and raise some—and where there was any timber make a reservation and keep it. I think if they had started ten years sooner or twenty years sooner to make the forest reserves as they have it now that we would have lots of timber yet, provided the fires were kept out.

The CHAIRMAN. Take it in the large cities fifty years ago. The fire department was mainly volunteer fire department.

Mr. WEYERHAEUSER. Yes.

The CHAIRMAN. Now New York and Chicago spend, I guess, several million dollars a year for fire protection.

Mr. WEYERHAEUSER. Yes.

The CHAIRMAN. Isn't it just as necessary to preserve the forest?

Mr. WEYERHAEUSER. It is; yes, sir.

The CHAIRMAN. Can it be done with no greater expense or far less expense than it is to give fire protection in the city?

Mr. WEYERHAEUSER. It ought not to cost anything like it, because there is not so much danger. If you have timber by itself, it don't cost so much to protect it.

The CHAIRMAN. We do not expect a man to furnish all his own fire protection. I suppose that this building that we are in is equipped with some fire protection, but the insurance companies and the owners of buildings do not rely upon the fire protection in the building. They want a city fire department besides.

Mr. WEYERHAEUSER. Yes; that is right.

The CHAIRMAN. The timber that is burned over this year, would not a small part of the value of that have given good fire protection everywhere?

Mr. WEYERHAEUSER. It would. The young timber this fire has not hurt so much—the growing timber.

The CHAIRMAN. But it has cut off timber that is from 5 to 20 years old that was growing.

Mr. WEYERHAEUSER. Yes.

The CHAIRMAN. Fire does not often start in timber that has not been cut over?

Mr. WEYERHAEUSER. Not often, excepting lightning once in a while starts a fire. Timber was burned before settlers were in this country. Every once in a while we find a growth of timber that took fire somehow. I have always had an idea that it was done by lightning.

The CHAIRMAN. I suppose that would be rare, because lightning is usually accompanied with rain and that helps put it out.

Mr. WEYERHAEUSER. Yes.

Mr. RYAN. The fire starts in the slashings that are left after cutting, and that is very destructive?

Mr. WEYERHAEUSER. Yes. That kills the rest of the timber. The bulk of the timber in Wisconsin is hemlock, and hemlock can not stand any fire at all. Pine stands a great deal more fire than hemlock.

Mr. RYAN. They would go through these forests and just cut the pine?

Mr. WEYERHAEUSER. Yes, sir.

Mr. RYAN. Then a fire is sure to follow?

Mr. WEYERHAEUSER. Yes.

The CHAIRMAN. Fire does not do much harm in this large pine. does it?

• Mr. WEYERHAEUSER. No, except it kills the small pine.

The CHAIRMAN. It does not hurt the big pine tree any, does it?

Mr. WEYERHAEUSER. No. We had a lot of hemlock killed in Washington. I went through that timber and the lower part of the timber did not show any fire at all. I said it was all right, the timber would come out all right. They said it would not. The next year the needles did not come out. The fire went through the top and burned the needles off and killed it.

The CHAIRMAN. How long will a white pine tree stand after it has been killed without injuring it?

Mr. WEYERHAEUSER. Probably in four years it would not be injured. When the sap gets out it commences to decay, and mostly decays from the top.

The CHAIRMAN. How about the other trees, do they injure quickly?

Mr. WEYERHAEUSER. Yes, quicker. With our pine in Minnesota and Wisconsin we have to fell the timber or the worms will destroy it. We had one hundred and fifty million burned about 15 miles this side of Duluth and it was valueless.

The CHAIRMAN. Was that pine?

Mr. WEYERHAEUSER. That was all pine. That was burned. There were a great many leaves and needles on the ground and the fire came and burned the leaves. We didn't think it would die, but the first year about a quarter of it died and the next some more, and after a while we lost it all.

Mr. RYAN. If you had cut that right away would it have been all right?

Mr. WEYERHAEUSER. Yes.

Mr. RYAN. You could not do that?

Mr. WEYERHAEUSER. We might have done it, but lumber wasn't worth anything. We shipped lumber from Duluth to Chicago and got about three and a half or four dollars.

Mr. RYAN. How long ago was that?

Mr. WEYERHAEUSER. That was in 1894, I think. The fire that burned the needles was a terrible fire. As I understand it, we have got to have needles, as they are the lungs of the tree.

The CHAIRMAN. We are very much obliged to you.

Mr. WEYERHAEUSER. I wish I could tell you more about it. I would be glad to do it. I think it is high time for the State or the Government to do something. The individual can not do it very well.

The CHAIRMAN. The individual can not do it alone. I have got a nice piece of pine land in Florida. I don't think it is good for anything else except raising pine. Pine grows on it in great shape, but it is just a waste of time, for every few years some fellow sets fire to it and burns it all over.

Mr. WEYERHAEUSER. You asked me a question about taxes, how much it would be per acre.

The CHAIRMAN. I thought you got it a little high.

Mr. WEYERHAEUSER. I think so. I think we have paid as high as \$160 to \$200 on forties.

The CHAIRMAN. That would be an exceptional case?

Mr. WEYERHAEUSER. Yes.

The CHAIRMAN. Compounded by the time a tree got to be good size it would be more than the land would be worth.

Mr. WEYERHAEUSER. Yes. I think we have paid as high as \$200 a forty where everybody knew we had good timber and the fellows that make the assessment want that timber cut down. They want to get the benefit of the logs.

The CHAIRMAN. I take it one of the difficulties you have about that is that when a few settlers get into a community they want the timber off; they want more people in there?

Mr. WEYERHAEUSER. Yes.

The CHAIRMAN. And the way to get it off is to tax it off?

Mr. WEYERHAEUSER. That is right.

The CHAIRMAN. We find in Congress that as a general thing the members from the newer portions of the country where they have lots of unsettled land, whether it be prairie or timber, want to get more people in there. The storekeepers want more people to trade with them, and everybody wants more people in there and they don't care much what happens to the natural resources. They want it all.

Mr. WEYERHAEUSER. Yes. I know we had two or three pieces of pine over in the Chippewa country which I wanted to save for my boys to show what pine timber was, but we had to cut it. Fire got in the edges and we couldn't keep it.

The CHAIRMAN. Your son Rudolph was kind enough to show us some very nice looking pine the other day up the railroad.

Mr. RYAN. Mr. Norris and I measured one that was nearly 12 feet in circumference about 18 inches from the ground.

Mr. WEYERHAEUSER. That was a good tree.

The CHAIRMAN. That would make pretty good lumber.

Mr. WEYERHAEUSER. Yes; 4 or 5 feet through; we used to find lots of them on the Chippewa.

The CHAIRMAN. How large was the largest white pine you ever saw?

Mr. WEYERHAEUSER. I would say from 4 to 5 feet; 6 feet on the stump.

The CHAIRMAN. Timber grows very large on the Pacific coast, doesn't it?

Mr. WEYERHAEUSER. Mostly.

The CHAIRMAN. That is because it is warmer there, I suppose?

Mr. WEYERHAEUSER. There is more moisture. In Washington we have timber land there which grows fifty million to the section. Here if we had twelve or sixteen million it was very good. I know one that we cut sixteen million off from.

Mr. RYAN. Where was that—Chippewa?

Mr. WEYERHAEUSER. Yes, sir. We had better timber in that country. Ten thousand to the acre is pretty good in this country. We have got to count all the swamps in to make an average, where nothing grows.

STATEMENT OF GEN. CHRISTOPHER C. ANDREWS, FORESTRY COMMISSIONER OF MINNESOTA.

(Examined by the chairman.)

The CHAIRMAN. Will you state your official position to the stenographer?

General ANDREWS. Forestry commissioner of Minnesota.

The CHAIRMAN. How long have you held that position?

General ANDREWS. This is the fourteenth year.

The CHAIRMAN. Were you connected in any way with the office before that?

General ANDREWS. No; the title was, up to four years ago, chief fire warden, but the duties are the same.

The CHAIRMAN. How long have you been interested in forestry matters?

General ANDREWS. I was brought up on a farm in New Hampshire that contained pine forest. I, however, became interested in forestry when I was minister to Stockholm in 1869. In 1872 I made a report on the forests of Sweden, which is published by the Department of State in pamphlet form and also in the diplomatic papers, so I have been interested in forestry many years.

The CHAIRMAN. Did that paper cover the forestry methods of control in Sweden?

General ANDREWS. It did. A new edition of it was published about eight years ago by Congress, by the Senate, 20,000 copies. It was revised and the revised edition was published.

The CHAIRMAN. We will insert that in the record.

[Senate Document No. 452, Fifty-sixth Congress, first session.]

REPORT ON FORESTRY IN SWEDEN.

INTRODUCTION.

My report on forestry in Sweden was originally published in the volume of Foreign Relations of the United States for 1872, and the then Secretary of State, Mr. Fish, also caused a separate edition of it in pamphlet form to be printed and distributed. The Senate having authorized a new edition to be revised by myself (without charge). I immediately consulted Count Wachtmeister, chief of the forestry bureau at Stockholm, as to any new matter that could properly be introduced. He replied that on account of changes that had occurred since my report was made it would be advisable for me to engage Mr. K. G. G. Norrling (extra jägmästare) to prepare a short complete sketch

of the present situation of Swedish forestry, which I gladly did. Mr. Norrling is an educated and trained forester, eligible for appointment as chief of range, and has furnished a very able sketch in Swedish, a translation of which forms the fourth to the tenth of the following subdivisions, inclusive. The translation is not as concise as the original, but is the best that circumstances have permitted.

1. MR. ANDREWS TO MR. FISH.

No. 106.]

LEGATION OF THE UNITED STATES,
Stockholm, August 5, 1872. (Received September 25.)

SIR: I have the honor to send herewith a report which I have prepared on the forests and forest culture of Sweden. It comprises a practical description of the manner of growing and the economical management and use of forests, as well as a translation of some of the principal laws on the administration, care, and preservation of public forests and for the support of instruction in forestry.

I also transmit four different treatises, in Swedish, on forest culture, cited in the report; also a report of a commission in regard to further legislation concerning the forests.

The commission first mentioned recommended legislation in Sweden similar to what obtains in many other countries of Europe, prohibiting owners of private forests from cutting for commercial purposes trees under a certain size. The fact that some kinds of trees require several generations for their full development and that the climate and supply of water in a country are much influenced by the existence or nonexistence of forests affords strong grounds for such a law.

Trusting that this document may be of some help in shaping the much-needed legislation in the United States for promoting regrowth and the preservation of forests, I remain, etc.,

C. C. ANDREWS.

2. NATURE AND EXTENT OF THE FORESTS OF SWEDEN.

The great mass of the forests of Sweden is found in the north central part of the country, and consists principally of the so-called Scotch pine and the white or Norway spruce, both of which grow to great size and are highly esteemed for their timber. The common European oak has its natural northern boundary along the river Dal, but is cultivated up to Sundsvall, in latitude $62^{\circ} 20'$. It is a splendid tree, a favorite ornament to parks, and produces timber superior to American white oak. The beech abounds in the south part of the kingdom, and is cultivated even north of Upsala. However, the species most numerous, next to fir, is the white birch, which has a beautiful drooping foliage and is useful for timber. It is found in all the forests and is not unfrequently used for avenues at country seats. It furnishes the principal fuel. The lime, or linden, makes a handsome and vigorous tree, and it is not uncommon to see it forming splendid avenues a couple of centuries old. The gray alder is very common and merits particular notice on account of its large size. The elm (less stately than the American), the soft maple, the ash, the poplar, the hawthorn (oxel), large and handsome, are also common.

On the whole, Sweden appears to be a natural forest country. Nor is the climate unfavorable to a fair variety and hardy growth of trees. Observations at Stockholm, from 1754 to 1863—one hundred and nine years—show that the extreme of heat during that time was $96^{\circ}.8$, and the extreme of cold $25^{\circ}.6$ below zero, Fahrenheit. At Haparanda, the most northerly port, also in Jemmland, the mercury frequently freezes. [For some remarks on the fruit trees of Sweden, see report on the agriculture of Sweden, Commercial Relations United States, 1870, p. 385.]

In 1850 the then chief director of the Forest Institute estimated the area of land in Sweden which bears, or is suitable for bearing, forests at 30,000,000 acres; and he expressed the opinion that if forest growing was properly attended to the country would not only have enough product therefrom for its own use, but a quantity for export, which, at the then increased price of lumber in southern countries, would be more profitable than the export of iron. He maintained, however, that forest economy up to that time had been managed with the greatest want of care.

Mr. Forsell, in a paper on this subject published in 1844, shows that a lack of timber was beginning to be felt in many parts of Sweden, and states that Stora Kopparberg and Gefleborg were the only counties so rich in forests as to be sure of their preservation for a long term of years without an improved system of forest economy. And he adds that if such a system shall not be established, the whole country will soon suffer for the want of forests.

As proof, however, of the efforts in this regard which were being adopted by the Forest Institute, as well as the iron office, it may be mentioned that on Wisings Island 700 acres were planted with oaks, the sand plains of Christianstad and Holland counties were planted with trees, and improvements were made in the royal parks.

At present one sees along the principal routes of travel a generous supply of forest, though the trees are mostly young; and the surface of the country, being agreeably undulating and abundantly supplied with clear streams and lakes, tends to produce a favorable impression. The growth of young forest on patches too rocky for tilling, or even grazing, and the scattered seed trees left standing in places where wood or timber has been cut off in the larger forests, remind the traveler of the attention to forest culture which is becoming general.

3. HISTORICAL SKETCH OF FOREST ADMINISTRATION.

Most of the countries of Europe, and Sweden among them, appear to have borrowed the principal part of their forest science from Germany, which has long occupied the foremost position in respect to forest administration and forest literature.

Forest regulations were issued by the Swedish Government as early as 1647; and even before that private owners were required by law to plant and protect from cattle two timber trees for every one cut—a crude practice, which to the educated forester is ridiculous, because to obtain good timber trees the forest when young must be crowded. The owners of privileged estates were exempted from this last requirement by the diet of 1734, but it continued to apply to tax-paying estates and to crown lands leased to private persons till 1789. Regulations for the forest were again issued in 1793, but they were soon found unsatisfactory, and in 1798 a commission was appointed, consisting of six persons, to devise new regulations, which, after five years' labor, reported an amendment of fifteen sections of the forest regulations, and their project was finally confirmed and issued in the form of forest regulations, August 1, 1805. The same day a royal circular letter was sent to each of the county or provincial governments, ordering a project to be presented for a law on the duty of replanting forests. Shortly afterwards Prof. F. W. Radloff was commissioned to visit Germany to study its forest system, and his report was submitted, in 1809, to the before-mentioned commission. The subject was, in 1810, remitted by the diet to the administration of marine affairs and the bureau of public or crown lands and of mines, which, after the provincial governors had expressed their opinion thereon, recommended (1819) that each county or provincial government should work out a plan adapted to its own locality, and that a committee for the whole kingdom might then be appointed to prepare a final project for a law on this subject. The matter was taken up in the cabinet in 1820, but was postponed till 1823, in order to be united with a law for the sale of crown timber; and the result was that regulations for the crown forests were issued by the Government in 1824. Early in 1828 a committee of three persons was appointed by the Government to report a project for the economy of public and private forests and amendments to the laws in regard to hunting. The committee reported the same year in favor of the establishment of a forest institute, to be located in the deer park, close to Sockholm, of suitable instruction in hunting, and the establishment of a central bureau or administration for the management of forest affairs. The Government established the institute and confirmed the plan for its operation. The committee, on further consideration, being of opinion that the administrative duties could be performed by the chief director of the institute, the Government postponed establishing the central bureau of administration, but charged the committee to prepare a new plan of instruction in regard to hunting and the management of forests. Report having been made as to the principles which should obtain therein, the committee was again, in 1836, ordered to report regulations in conformity with such principles for instruction in the forest and hunting establishment. Their projects were presented in 1837, and the Government issued an order embodying the same March 16, 1838.

Influenced by the action of the sixth Swedish national agricultural fair of 1853, no less than by that of the diet in 1853 and 1854, the Government appointed a committee to report a project as to what means, either through the legislative or executive branches of the Government, could further be adopted to obviate in the future the then complained of lack of forests and the injurious climatic effects arising from their destruction. Their report was handed in June 28, 1856, embracing a plan for the management of forests, and action thereon was taken in 1859, when the bureau of forest administration was created.

4. AREA OF STATE FORESTS.

The whole area of Sweden, water not included, contains 102,797,720 acres, of which 72,711,285 acres are uncultivated land (barren mountainous regions not included), and of this area, 47,500,000 acres, or 46 per cent, consists of forests. Among countries exporting wooden manufactures Sweden takes first place, both on account of the magnitude of the export and the excellent quality of the timber. The forests belong either to the State, to certain communities and public institutions, or to private individuals.

To the State belong:

	Acres.
Crown parks	9,354,404.20
Quicksand plantations	3,333.13
Undivided crown lands, etc.	2,390,562.52
King's domains	483,177.05
Forests assigned for the maintenance of civil and ecclesiastical officers	902,486.23
Mine forests, etc	761,036.52
Total	13,894,909.65

Other public forests are:

Forests assigned to public institutions	129,666.77
Common woods belonging to certain communities	1,476,624.30
City forests	104,779.83
Forests of crown lands and plantations	2,821,172.70
Total	4,532,243.60

All these forests, containing in all 18,427,243.25 acres, are called public forests and are placed under the supervision of a separate department for the management of the forests. The greater part, or 12,500,000 acres, are under the exclusive control of this department.

The public forests contain about 25 per cent of all uncultivated land and the greatest part of the forests of Sweden is, therefore, under private ownership. The two northern provinces, Lapland and Westerbotten, extending between 64° 00' north latitude, having the largest percentage of public forests, viz, 12,750,000 acres. But in all other provinces private forests predominate. There is a great desire to increase the public forests, as experience has clearly shown that owners of private forests always endeavor to get as early profit as possible by cutting the timber that is most easily sold, without thinking of the future need and common welfare. The Swedish Riksdag has looked into this matter thoroughly, and large sums are yearly devoted to the purchase of land in order to establish new crown parks.

5. FOREST ADMINISTRATION.

The value of the forests and their great influence, both upon the climate and the fertility of the soil, is now understood by all intelligent people in Sweden. The idea also prevails that the forests are threatened with destruction, if not the same special care is applied to them as to the cultivated soil. They have therefore been placed under systematic management. The forests are under the care of various officials—chiefs of range, managers, and foresters—and the State is doing all in its power to protect the forests by proper legislation. Large sums have been granted for their management, and nothing has been neglected in order to bring the forest economy into a true relation with other branches of agriculture.

From the above it may be seen that forest economy is of great importance, as mistakes in regard to the management will affect a long period, and at the same time it is hard, if not impossible, to remedy them. The State has, therefore, either at the universities or at special institutions, provided for a theoretical education of forest officials. They receive the necessary practical instruction in the forest.

A competent forest manager ought to be a naturalist, a forest economist, and a man of business, all in one; he ought to be especially versed in natural history, forest legislation, building of roads and waterworks, and also in political economy. He must know the peculiarities and the developments of all different trees, mosses, and forest vegetation; he must be familiar with the quality of the soil in each part of his district; he must make observations in regard to nature's influence, if favorable or harmful, upon the growth of the forest; he must observe the winds, the precipitations, the drought and the frost, and the animal life, from the grazing beasts to the smallest insects. He must know the effects of all these different influences, so that means may be taken to protect the forests.

The proper method of managing forests has been investigated from time to time by special committees, from the forest committee of 1749 to the Norrland forest committee of 1868. The expected results have not yet been accomplished, and the question of the State's relation to private forest economy is yet an object for lively discussion.

In 1896 a committee was appointed to submit propositions for a better management of private forests, and the work of this committee was finished in 1899, although the results of its investigations have not yet been acted upon by the State authorities. It seems as if the idea now generally prevails that the preservation of the forests is necessary to the future welfare of the country. The forests must be better managed and cultivated; it is not sufficient to lessen the cutting of timber.

The later history of Swedish forest economy is intimately connected with the name of Israel Adolf af Ström. Having traveled extensively in Denmark and Germany in order to study the higher developed forestry of these countries, he made his experiences known through books and pamphlets, and he also used his personal influence to effect a better system of forest economy. He paved, indeed, the way for the later development of forestry in Sweden. The first result of his work was the establishment in 1828 of the State Forestry Institute in Stockholm, and the organization of the forestry corps (*skogsstaten*) in 1836. Ström had as early as 1823 established a private forestry school at his own expense. He died on the 24th of October, 1856.

The development from that time has not depended upon individual struggle, but upon the cooperative efforts of the forestry corps and the central forestry bureau (*skogsstyrelsen*). The latter was in existence between 1859 and 1882, and during these years Mr. C. A. T. Björkman (of late years governor of the province of Gefleborg) exercised a great influence upon all matters pertaining to forest economy in Sweden. Reorganized in 1893 as the domain bureau ("*domän styrelsen*," literally domain administration), it has distinguished itself by adopting the newest ideas, not only in regard to educational work and firmer organization of the forestry corps, but also in regard to rational forest management, in which the system of tract cutting had formerly been treated with partiality. The perfection of the thinning system and propagation through methods of heredity and selection are, no doubt, the most powerful factors in bringing about a sounder and more lasting condition of the national forest economy of Sweden. But in order to reach such a development experiments are necessary, and these experiments must be made according to certain plans and continued until crowned with success. The results gained by these experiments are rather too expensive to be used in the practical economy of the forests, and it is, therefore, very probable that an experimental forestry station will be established in Sweden similar to institutions of this kind in the larger countries of Europe.

The domain bureau superintends not only the public forests, but also the State agricultural lands. It is under the control of the royal agricultural department. The forestry corps (*skogsstaten*) is under the domain bureau, and received its present organization in 1890.

The forests of Sweden are divided into nine districts (it is intended to later increase them to ten), and each of these districts is under the management of an inspector (*överjägmästare*), whose principal duty is to exercise control over his subordinate officers. He ranks with majors of the army and receives a

salary of \$1,400 a year besides traveling expenses. The districts are subdivided into "revir" or ranges, numbering eighty-eight in the whole country according to a granted increase in 1900. Each range (revir) is under the supervision of a chief of range (jägmästare—hunting master), whose duty is to take care of the public forests in his range and also (in certain parts of Sweden) to see that the laws in regard to private forests are observed. He ranks with captains of the army and receives a yearly salary of \$1,200. He is aided in his duties by an assistant (extra jägmästare) and gamekeepers (kronojäre). The latter superintend certain tracts (bevakningstrakt) of the range.

Lapland and Westerbotten contain 33 ranges, each averaging 312,500 acres of public forests and 410,000 acres of private forests. The latter are also under the control of the forestry corps. In central Sweden (the remaining part of Nordland and Dalarne) each of the 17 ranges averages 150,000 acres of State forests, while of the private forests only 145,000 acres (located in Sarna and Idre revir) are under the control of the forestry corps. In southern Sweden (Gotland and Svealand except Dalarne) are 38 ranges, each averaging 47,500 acres of State forests and 6,250 acres of communal woods (härads allmänningar). In one range (the island of Gotland) the private forests containing 538,000 acres are to a certain extent placed under the control of the forestry corps. In the whole country the State forests average 166,250 acres in each range.

The duties of the forest officials are fixed by the royal instruction to the forestry corps of the 29th of November, 1889.

In exercising supervision over the range the proper officers must act in accordance with the royal regulations of the 28th of January, 1894, in regard to the economy of the public forests. As public forests are also considered the so-called communal woods (härads allmänningar in southern Sweden, they are managed after the same methods as the State forests.

The most important law in regard to private forests is that of the 29th of June, 1866, about the right to dispose of the timber on certain lands for which ground rent is paid to the State (skattehemman) and which were originally new settlements (§ 4 and § 5 of this law are changed by the royal notifications of September 18, 1874, and of April 20, 1883). This law was originally intended only for such rental lands in upper Nordland which were separated from the Crown after June 29, 1866, or for such older settlements where the prescribed duties in regard to building and cultivation had not been fulfilled. But through § 8 of the royal regulation of May 30, 1873, in regard to the dividing of the grounds in the Lapland districts of Westerbotten and Norrbotten, this law was extended to all private forests in Lapland, the largest and most northern province of Sweden. Although this province contains many barren mountains, it comprises not less than 19 ranges. Through section 4 of the royal letter of June 27, 1879, in regard to the grounds for surveying and dividing Sarna parish by the Idre Chapell law, this ordinance of 1866 was extended to these parishes containing the most southern mountains and constituting each one range. This law is intended to limit the yearly output to a certain quantity of timber which the chief of range marks out for sale. It is therefore called "compulsory marking" (utsyningsväg).

No forest laws are in force for the mountainous regions between Lapland and Sarna parish. In Westerbotten, the next largest and the most northern of the coast provinces, containing 14 ranges, the private forests are subject to the royal ordinance of March 19, 1888, in regard to measures for preventing excessive cutting of younger trees in the districts of Vesterbotten and Norrbotten. This ordinance limits the amount of timber to be offered for sale to trees of a certain minimum size, and is, therefore, called "the dimension law." Only if smaller trees must be cut for the best interests of the forest the chief of range shall first mark these trees for sawing and shipping purposes. In the island of Gotland, constituting one range, all private forests are subjected to the law of March 30, 1894, about measures for preventing forest destruction in Gotland.

The aim of this law is not only to act as a dimension law, preventing the shipping of smaller trees, but also to cause voluntary forest cultivation made necessary by the lack of natural reproduction. After an investigation has been made by the chief of range the governor of the island is authorized to prohibit any timber to be cut for shipping purposes until new growth has been produced. In three southern ranges of Sweden similar regulations are prevailing in regard to 19 private quicksand plantations where cultures and markings shall be made by the chief of range.

The private forests above-mentioned subjected to different laws constitute about one-fourth of all private forests. How large a percentage of the remaining three-fourths that are managed more or less according to the principles of forest economy can not be stated, but it is a fact that at least a part of them are cared for by persons educated in forestry. Many of the private forests of Nordland have been acquired from their original owners by sawmill companies, and this has greatly hastened the utilization of the forests.

As a part of the official statistics of Sweden the domain bureau publishes a report every year of the forest conditions of the country during the preceding year. This report is based upon the annual reports which the inspectors and the chiefs of range are obliged to send to said bureau in regard to the management of their respective districts and ranges. According to the report of the domain bureau of 1898 the assessed valuation of the Crown parks and similar state forests was \$1.60 per acre.

The statistics of the same year show :

The income to the State from forestry-----	\$2, 104, 412
Cost of management (for the forest economy)-----	\$275, 879
Cost of administration (for the forestry corps)-----	135, 146
The forestry institutions-----	12, 634
	<hr/>
	423, 659
Net earnings-----	<hr/>
	1, 680, 753

In the administration expenses is not included any part of the cost for the maintenance of the domain bureau, agricultural department, or the provincial governments, although they are all taking part, more or less, in the administration of forestry. In regard to private forests of Sweden, any certain values can not be given.

6. DIFFERENT SYSTEMS OF FOREST CULTURE.

Thinning was originally the only method of cutting timber, and the cutting was done wherever it was convenient to do so without taking into consideration the condition of the trees left standing or the requirements for reforestation. The result was that the forests degenerated and became sparse. The cause was ascribed to the method of thinning, and instead of improving this method it was almost entirely abolished and tract cutting introduced. Many a forester would not afterwards accept any other method than the latter, which enabled him to estimate the future producing capacity with very great accuracy to provide for forest reproduction, and also to see without difficulty the results of his work; but tract cutting violates nature, and as certain circumstances make the application of the method harmful to the forest's duration, the old method of thinning, although now greatly improved, has again been adopted. Often thinning has been adopted because of the rocky and poor quality of the soil. Such is the case with quicksand plantations on the seacoasts, where a method of thinning must be used, as it is important that the complete growth of the trees prevent the sand from becoming loose and drifting.

If a forester were accompanied on his inspection tour in the desolate forests of Norrland it would be seen that he also must employ a method of thinning, as only the large trees suitable for lumber can endure the long transportation and be in a fit condition to sell. Thinning is, therefore, necessary for the sake of economy, and forests, where this method is practiced, are called timber-thinning forests (timmerblådningskogar).

Tract-cutting forests are divided into districts and smaller divisions according to the condition of the trees and the soil and a specified number of cuttings made, each of which is cut and replanted at the same time, so that in the future they may produce trees of the same age. In the beginning the new growth is very dense, so that thousands of plants are found on each acre, but soon many become crowded and die out. This clearing process continues with increasing force, and as soon as the plants have reached such size that they can be utilized for poles and sold, this natural-clearing process is aided by removing all damaged, ugly, and crowded trees, and this is repeated at certain intervals, usually every tenth or twentieth year. Assistance clearing, the forester calls this operation, and he seeks thereby to hasten the development of the remaining trees. When reproduction is the result of seeding, and the forest is allowed to continue its growth until mature, about one hundred years or more, as is the case with the coniferous and some deciduous forests, they are

called "high forests" (högskogar), whether the cutting is done by tract cutting or thinning.

During the last two decades the thinning system has again come into favor. It was at length seen that tract cutting was not conducive to protect the soil's power of reproduction, which is liable to deteriorate after the cutting has been completed, and it also brought with it considerable culture expenses. During the latter years it has also been observed that transplanted forests and also those raised by seeding are inferior to those reproduced by natural propagation. Seeds have been taken from parent trees, good or bad, without discrimination. Most of the seeds are grown in nurseries, and they often give the plants bad peculiarities which they have inherited. After the poorest have been thrown aside the others have been treated as normal plants and set out, as if they would all reach the same state of perfection. The natural selection has therefore been counteracted, and the result must be degeneracy. When thinning is now in progress, special attention is paid to a continual progressive selection. This is commenced in the young forests and is repeated after suitable intervals, the length of which depends upon different conditions and is greater in the northern parts. It is also used in middle-aged and older forests, reproduced by natural propagation, in groups, without the soil becoming exposed to the sun or the winds.

As thinning therefore protects the nourishment of the soil better than tract cutting and at the same time provides for reproduction without direct expense, it also produces a forest hardier against external dangers. Far from trying to produce tracts of trees of a uniform age, which are the tract cutter's pride and joy, the work is arranged so as to reproduce forests of the greatest possible difference in age. The forests are raised by propagation in groups, causing these groups of young trees, by cutting the larger trees on the borders, to extend until they at length join each other. Each group will, consequently, have the largest and highest trees in the center, and the trees will decrease in age and size toward the sides. This amphitheater order brings with it light, not only from above, as is the case in tract-cut forests, but also from the sides, by which a more rapid growth is secured. The power to resist the pressure of snowfalls and storms is thereby increased, and the danger of attacks from insects lessened. Thinning also allows each individual tree to exercise its right. The many slender trees which under the system of tract cutting are felled develop under thinning into trees that will furnish the finest timber. The cause of this is the exposure to more light, by which they acquire a more rapid growth.

There are many modifications of the thinning system. From the above-described method of thinning, tract thinning differs, especially in that respect, that in reproducing less attention is paid to a circular widening of the old openings than to continually making new ones. Another modification of thinning produces propagation first by a general thinning, and later on by a thinning, increased during a long time, of the so-called reproduction tract. The different methods of thinning are employed exclusively in the northern and central parts of Sweden, called Norrland and Dalarna, where two-thirds of all the forests in the country are located. Of the State forests, 90 per cent are thinned, and of the private forests, 60 per cent. In the remaining forests of the country tract cutting prevails.

7. FOREST REPRODUCTION.

Propagation as applied to forest means the continuance or multiplication of trees, either by nature or by human means, by which a new generation of trees is produced to succeed a forest wholly or in part destroyed. When trees are cut simply for lumber or other purely forest crops, care should be taken that a new crop may cover the part deforested. This should not be left to chance, but the greatest discrimination should be exercised, for there is reason to believe that the plants will inherit the peculiarities of the parent tree. Just how far this inheritance extends can not yet be stated, as relatively few experiments have been made with forest trees. The more noticeable among the peculiarities are the larch tree's inclination to grow a crooked trunk, the characteristic appearance of the pine tree's trunk and crown, the speedy growth of pine, spruce, and birch, the time for budding and shedding their leaves, etc. The results show that heredity is an important factor to be taken into consideration and that in many cases plants of crooked, knotty, stunted, and sickly trees will be liable to resemble the parent trees. Consequently only rapid-growing,

healthy, handsome trees ought to be allowed to propagate our forests, so that they will not degenerate but advance to an end toward which culture is striving—greater production and more valuable forms.

When, therefore, the soil that produces a tree of slow growth can nourish one of more rapid growth of the same species, wisdom counsels us to save only the best trees for the purpose of natural propagation or self-seeding. Of Swedish coniferous trees, only the pine can be left standing as single scattered trees when cutting is done, as the spruce so treated would either dry up or be overthrown by storms. The spruce forest ought, therefore, to be reproduced by thinning; but this thinning can not be done in old, dense spruce forests, as the trees would then be exposed to drought. The cutting must commence with middle-aged districts, and be repeated at short intervals, always cutting poorer and less perfect trees first, so that only beautiful and well-grown parent trees may contribute to propagation.

But even with the different methods of natural propagation, the forester must lend his aid wherever necessary. He must hoe or in some other manner loosen the earth, so that the falling seeds may sink into the soil and then grow as protected as possible. If a new growth fails to appear at the expiration of the usual time, longer time being allowed to higher latitudes and places of a higher level above the sea, new seeds must be sown or plants transplanted so as to raise more trees, for every year's delay only conduces to make the soil more dry and unfruitful. The requisite plants are often taken from places where the growth is denser than the welfare of the forest demands; but usually they have been sown and raised in nurseries, especially made for this purpose, where greater care can be expended on their development. The latter method of raising trees is best adapted to pine, spruce, and birch, but in certain instances is used to grow oak, larch, and other varieties.

In the southern part of the country, between 56° and 60° north latitude, where tract cutting is employed, many foresters prefer transplanting to seeding, as they consider the latter method less reliable. Of coniferous trees, young plants from 1 to 5 years are used, generally 2 and 3 year pine plants and 2 to 4 year spruce plants. In transplanting great care must be taken that the roots may not become dry and that the least possible injury be done. The older the plants are that are to be transplanted the more carefully must they be removed, often letting a piece of earth remain around the roots. Planting in holes with the best porous soil is the proper way to guard against drought, which is the greatest hindrance to the advancement of culture. If planting in very poor soil, fertilized soil should be used in filling up the hole. Some foresters set several plants together; others censure, though often without reason, this method of planting, and set only single plants in each hole, carefully rejecting all plants not wholly perfect.

It is impossible to tell from the plant what the tree will be like, so that often after planting the result has been an ugly forest. The reason for this is unquestionably that the seeds did not come from beautiful trees.

The distance between each hole and the order in which they are arranged differs very much. Usually the 2 to 4 year-old plants are set in rows 1.5 to 2 m. apart, there being about 1.2 to 0.9 m. between each plant. In this way each plant receives about the same amount of space as if planted in square style at a distance of 1.3 m. or 1.7 to 1.8 m., by which 5,000 to 6,000 plants would be required for 2½ acres. When planting, the holes are usually made with a hoe and the plants set and planted with the hands. Care should be taken not to use implements that press the earth together and do violence to the roots.

In Sweden raising trees from seed is more common than transplanting. The ground is usually prepared in squares, and about 10 seeds sown into each square. The distance between these squares varies, but ought to be less than that between the holes made for plants. Eight thousand to 9,000 squares, with a surface of 2 to 3 square meters apiece for each 2½ acres, is considered the ordinary number for most districts. It is preferable to sow the seeds on the north side of and near stumps, stones, and other objects that give shade and protect from destruction by grazing cattle. This tree seeding occurs between 56° and 64° north latitude, but north of that it is rarely used.

In the public forests during 1898, through the forestry board, about 10,000 acres were cultivated at a direct expense of \$2 per acre. What amount of this was planted and what amount seeded can not be definitely stated.

8. THE FOREST'S ENEMIES. (PROTECTION OF THE FOREST.)

The care of the forest in Sweden consists principally in providing protection against its enemies, although for complete management are also included different kinds of underbrush, clearings, and thinnings. Such clearings are not now necessary to any great extent in the country's old forests, which have originated through natural propagation and are consequently not dense, but the now 30-year old forests, which are partially or wholly the result of cultivation, will receive such care from a so-called stand culture.

In order to provide sufficient defense against storms, which in Sweden are the principal cause of injury to forests, the forester ascertains the direction of winds and strives to keep the part most exposed in a sound and dense growth. The northeast and southwest winds in Sweden are the most destructive, and in the interior of the country also the direct western winds. When cutting timber it is therefore necessary to take the effect of the winds into consideration. The cutting ought to commence from a sheltered side and proceed toward the direction from which the wind comes with the greatest force.

Many varieties of tree plants must be protected from the frost. Such plants should not be raised in valleys which are conducive to frosts. The best protected places are those of a higher elevation than their surroundings, the colder and heavier layers of air settling in the lowest places. For certain tender varieties, to be distributed in northern parts of the country, warm, southern slopes with a somewhat dry and porous soil must be found. As a rule, places near marshes and swamps are more liable to frosts, and, besides, the surrounding woodland is so wet that forest vegetation on that account depreciates. The swampiness is increased by mosses which form the soil covering. In large territories, especially in Norrland, the ground is in this way in a state of increasing swampiness. The forest economist's duty is in such cases to change the vegetation at the same time that he cuts the timber. But where the woodland is so wet that the vegetation suffers therefrom, it should be drained by ditching.

One of the forest's enemies is fire. During dry summers forest fires were formerly quite frequent, but now rarely occur, and when they do are usually caused by lightning. Yet they can originate from very trivial things, such as carelessly extinguishing camp fires in woods, and sometimes from sparks from a railroad engine. After a long drought it only needs a few sparks to fall among the dry brush and grass to ignite them, and the flames spread rapidly to the dry branches and the combustible stuff on the ground until the fire in a short time progresses with irresistible fury. The forest supervisor will then speedily call together as many people as possible, whose duty it is to immediately hasten to the place of the fire. If the fire is still confined to brush and grass, and if it covers only a limited area, the people are arranged on that side of the fire toward which the wind blows. While some with branches, which, if opportunity allows, have been dipped in water, sweep the burning mosses on the ground and strike against the fire to smother it, others are busy with hoes and spades scraping all combustible material on the ground in one long row, which to begin with is made only a few feet wide, but, if there is sufficient time, wider.

If the earth is rich in roots and vegetable matter, or if after a steady drought the fire has penetrated into the mosses, a ditch must sometimes be dug. It is more difficult to control the fire when it prevails in the branches of the trees, which is a frequent occurrence in the resinous coniferous forests. Because of the heat and smoke it is then impossible to approach the fire, and means of defense must be on a larger scale. For such a fire a line of trees are cut at a suitable distance from the fire, letting the trees fall toward the fire. They are ignited and a counter fire started, the two then consuming everything in their way. From the strong draft caused by the larger fire the counter fires are drawn toward it. Still, the smaller fires must be closely watched, so that they do not spread in other directions. When the fires meet there is then no more food for the flames and the fires die out themselves. Deciduous trees in their leafy season exert a remarkable force in preventing the progress of forest fires, and the prudent forester lets belts of deciduous trees, which are also beneficial to coniferous trees in other respects, extend through his coniferous forests. It is true that the fire does not destroy the timber in healthy trees, for only the resin, leaves, dry branches, and the bark, to a certain extent, become food for the flames; yet the trees themselves are so injured through this that they can not continue to grow and are felled. The yearly loss occasioned by forest fires is not large, but can not be definitely stated.

The forests' greatest enemies in the animal kingdom are its smallest ones, so far as the coniferous trees are concerned. The forest insects which, because of their insignificant size, are often overlooked by uninformed persons, do sometimes, when conditions have been especially favorable for their multiplication to enormous numbers, cause great ravages, and can then destroy not only extensive tree plantations but also whole forests. Among the insects which appear to have been most destructive in the Swedish forests, belong different species of beetles, such as bark beetles, pine weevils, pine beetles, and caterpillars. The bark beetles are called bark beetles because they burrow into the bark of trees and deposit their eggs there, after which the larvæ themselves make burrows in different directions in the bark, in consequence of which the tree dies. The eight-toothed bark beetle (*Tomicus typographus*) deserves special attention, as it attacks the spruce forests, and during years of ravages causes spruce drought on a large scale; also the twelve-toothed bark beetle (*T. stenocephalus*), which usually prefers pine trees.

A very small bark beetle, the six-toothed (*T. chalcographus*), is often found together with the common eight-toothed beetle, and makes pretty star-shaped tunnels in the bark. The common pine weevil (*Hyllobius abietis*) makes great havoc on coniferous plantations, but can, with some labor, be exterminated. The common pine beetle (*Hylesinus piniperda*), which at first sight much resembles the common bark beetle, is among the most widely spread of all the forest's injurious insects. Like the bark beetle, they live as larvæ in the bark of trees, and cause not a little harm when they become fully developed and devour the marrow of the youngest pine shoots, which thereafter dwindle away. They do not immediately kill the trees, but to a great extent retard their growth, and the top of the pines acquire a peculiar appearance, as if the side shoots had been cut off, and this is the reason the Germans have given this insect the name of gardener. The larvæ of the caterpillar destroy in the middle and southern parts of Sweden the roots of tree plants, and especially is this true of those in nurseries.

Among moths there are many which are injurious, such as the pine moth (*Gastropacha pini*), the black arches, nun or spruce moth (*Liparis monacha*), pine beauty (*Trachia piniperda*), the geometrical moth, bordered white moth or span worm (*Fidonia pinaria*), the larch mining moth (*Tinea la ricinella*), the pine-shoot tortrix or twig twister (*Tortrix buoliana*), the green oak tortrix or oak-leaf roller (*T. viridana*), etc. Among these the nun or spruce moth has advanced, devastating in southern Sweden, principally in Södermanland and Östergötland, where elaborate means have been employed for their extermination. The work has been chiefly confined to whitewashing the trunks of trees, this procedure preventing the larvæ from infesting healthy trees. Besides, in districts small trees have been felled and the branches trimmed off, both to prevent the larvæ from spreading and to deprive them of food.

Too numerous game can also be harmful to the forest economy. Sweden's most noble wild animal, the elk, causes in certain parts of the country noticeable damage to young pines whose cones and shoots furnish a part of his food. The roe deer causes injury to the plants of the spruce, and especially to those of the silver spruce. From the forester's point of view it would be well to reduce the number of these animals more than the hunter in the interests of hunting will admit. Even grazing cattle, and foremost among them the goat, become in places where propagation is in progress really injurious, especially if the pastures are not confined within certain limits.

To the forest's foes belong also a large number of parasitic fungi, which appear chiefly on the trees, blossoms, leaves, cones, bark, or else in the wood.

To the first group belong *Lophodermium Pinastri*, which in nurseries cause much damage to two-year or older pine plants, fungi, *Chrysomya abietis* on the spruce, etc.

To the latter group of fungi, which produce decay, may be named the *Polyporus pini*, *P. annosus*, *P. pinicola*, *P. borealis*, all common on our coniferous trees. Against the parasitic fungi one is as yet almost defenseless. In many cases the diseased plants and trees must be removed to prevent the infection from spreading.

9. PREPARING PLANS FOR THE CARE OF THE FOREST. (FOREST DIVISION.)

In rational forest economy the work which is to be done during a period of ten to twenty years is usually considered beforehand and special work defined for each year of this period. This calculation belongs to a part of forest economy called forest division or forest valuation. A careful plan of economy is

mapped out for the management of the forest on the basis of a previous surveying, description, and estimate or valuation of the timber. But this plan of economy must often undergo more or less alternation, in consequence of unforeseen circumstances, such as storm devastations, insect depredations, and forest fires, or when it is necessary to make use of favorable conditions which may arise when there is an increased demand for certain varieties of timber. The changes in the original plans which thus arise are righted at the forest revisions recurring at regular intervals.

Complete plans for the care of the forest are usually made only in regard to the State forests, and not even in regard to all of these, as for the greater number of crown parks in northern Sweden only a summary is made of the valuation of the timber resources. A similar summary is also made of the timber to be cut during the so-called division period.

The cutting of the stated amount is then done without any previously defined plan, wherefore the succeeding revisions are intended not so much for pursuing a systematic forest culture already started as for making new calculations like the former ones. Such original calculation that is not intended for a certain period of time, but is only temporarily in force, is also practiced in regard to private forests located among the mountainous regions. These forests are under the supervision of the forest corps, and all timber cut for sale must be marked. For other private forests, which are subject to forest laws, no estimate is made of the timber to be cut, as the owner of the forest can conduct his lumbering to suit himself if he only remains within the wide limits of the law. The forestry corps has only to see that the laws are obeyed, and if they are not to begin proceedings in the manner already described under heading, Forestry Administration. For the remaining private forests it is not customary to make working plans, although many of them—how many can not be stated—receive private attention from the forestry corps.

Directions concerning the division of the public forests for tract cutting and tract thinning were issued by the royal domain office May 16, 1896. According to these directions maps must be made of the forest, a general description of its nature and condition, and a special description of the different districts and tracts. A plan of economy with table, appendix, and memorial, containing propositions for the management and supervision of the forest and the disposal of the forest products, must also be made. In other words, a working plan is made.

The forest map is made on a scale of 1:8,000 by measuring in a great many lines, which, with the assistance of some already staked headlines, are measured off, with help of the compass, at 100 meters' distance from each other and traversing the whole forest. A change of that method is now under consideration in order to mark out, both on the map and in the forest, the permanent boundaries between the different tracts. The description is intended to form the foundation for the succeeding plan of economy, and shall include the result of the timber estimation, which is done either by districts or tracts, in cubic meters.

The plan of economy first defines the system of management and the rotation or the proper age of the forest trees. The age usually allowed to the two most common trees, pine and spruce, is about 100 years in the southern and not more than 150 years in the northern part. The time of rotation for the common birch found in pasture lands is from 60 to 80 years. The beech requires 120 to 140 years and the oak from 150 up to 300 years. Cutting or consumption is estimated according to the so-called compartment system introduced from Germany. To the plan of economy also belong directions for forest cultivation and drainage, building of roads, etc.

This forest division, carried into effect at the revisions and with a carefully pursued cultivation, creates a restocked forest of the greatest possible production for the future, but suffers the fault of giving, during the nearest periods, a very uneven present production.

In Sweden there are now (1900) no suitable regulations for divisions for thinning, but there is a passing from an old and obsolete method to a better one under which the foresters adapt their own various proposals. Lately the domain department has brought forth a project for regulating the division of public forests for systematic thinning. This proposition differs from the regulations for tract cutting now in force therein that the map of the forest is made on a scale of 1:20,000, that only trees which are disposable as timber are estimated in regard to number and cubic contents, and that the quantity of the yearly consumption is based on the amount of timber and the time of

rotation, according to the future relation between the production and the amount of timber which is expected to exist in the forest after it has been thoroughly renewed and the production raised to its highest point.

When taking out the yearly timber production, the forester, as a rule, first removes the trees that have blown down and those which are dry and otherwise injured. Next of importance is to remove standing seed trees or other older trees which prevent the growth of the younger trees. The cutting must thereafter be extended to old woods which have become thin and sparse, and in their place new tracts with a better growth must be established. The thinning may now begin in such young and middle-aged forests that are too dense, and last of all, the better and older forests are attacked in order to complete the yearly production. In mountainous regions and other districts where the forests are liable to suffer from storms, it is customary to let that part of the forest remain the longest which forms a kind of defense against the fury of the tempests. In other words, the cutting proceeds against the direction from which the storms come with the greatest violence.

When not all trees in an older forest shall be felled at the same time, the forest supervisor has each separate tree marked, the mark being placed both on the trunk and near the root or on a larger root branch, so that he can tell, after the cutting is over, whether other trees than those that were marked have been felled.

10. UTILIZATION OF THE FORESTS. (LUMBERING, ETC.)

Lumbering is usually done by hired laborers under the supervision of a forester, and they are paid either by the day or by the piece as is the case when cutting cord wood, timber, beams, rafters, etc. When lumbering is done on a large scale the laborers are organized into crews and each crew employed on a certain tract which in Norrland is called "shifte," assigned for harvesting. After markings have been made for the participants of the community wood they usually see to their own lumbering. When sale of timber has been made in the larger public forests, the lumbering is almost always done under the charge of the buyer. Where forest economy is managed with care and on a large scale, it has been found prudent to employ permanent laborers who perform the lumbering and other forestry work, such as replanting, drainage, inclosures, etc.; they also assist in guarding the forest.

Winter is usually the time for lumbering, as there is then no agriculture in progress, and it is then most convenient to get the timber out of the woods. Not only is the supply of labor greater during the winter, but there are also other conditions making this time of the year the most suitable for lumbering.

During the winter, cones from coniferous trees (with the exception of the silver fir) should be picked, as this is naturally most easily done in places where trees have been felled. As wood for fuel ought to lie over at least one summer to dry, it is more profitable to cut one winter and to haul it away the next.

In the great forests, far from the haunts of men, from which come the immense lumber piles and timber stores that line the harbors of Norrland's seaports, and where a profound silence reigns during the summer, is such life and activity during the winter months as can scarcely be imagined unless one has witnessed it. A large number of men from the surrounding district are then busy at work cutting and hauling timber to the nearest landing. The laborers live in cabins (kojor) erected near the timber tract; for the horses, temporary stables are built.

In felling the trees, the laborer must see that the trees do not fall in such a direction that trees standing near may suffer therefrom, that as little wood as possible is lost in chips, and that the work progresses as rapidly as possible. When trees are felled with an ax, two incisions are made on opposite sides of the trunk, and about 2 per cent of the wood is lost in chips. This is one of the reasons why crosscut saws are now commonly used both for felling the tree and for trimming. Even in northern Norrland the stumps are not allowed to be more than 2 or 3 decimeters in height.

The ax that the wood chopper uses to trim off the branches and to split the trees varies greatly in form in different districts. The one now commonly used is the American ax, the material of which is quite thin, but thicker toward the middle, so that the ax is less liable to fasten in the wood. The saws are also of different constructions. The two most widely used is the straight crosscut saw and the curved or crescent-shaped. The teeth of saws differ, however, greatly in their form and distance from each other.

The more difficult and consequently more expensive it is to haul the timber from the woods, the less value it has. A thoughtful forest owner will therefore endeavor to provide easy and suitable means of transportation, as he will in that manner raise the value of his timber to a considerable extent. To build good roads through the forests is one of the more important duties of the forest economists, and large sums have been expended for this purpose during the last years. In Norrland and Dalarne the forest roads can be dispensed with, as the snowy winters there make it both cheaper and more convenient to make only temporary so-called winter roads leading directly from the cutting places to the landing stations. Many millions have been expended in the northern provinces for the clearing of the rivers in order to make the floating of the timber more easy. In the State forests in southern and central Sweden much work has been devoted to road building.

Floating, however, constitutes the most important way of transporting timber. Without driveways it would be impossible to make the vast forests of northern Sweden available. After the timber has been hauled, during the winter, to the nearest stream on which floating can be accomplished, the logs are measured in regard to thickness and length and provided with the owner's mark, whereafter the floating begins with the spring flood. The timber is then brought through dams, canals, smaller waters that have been cleared, smaller lakes, etc., down to a larger body of water or a river, to which, in this manner, many different rafts of logs have been floated through other water courses which empty therein. Thousands of logs float farther down the river until they are caught in a boom, where they are sorted according to their marks and brought to the adjacent sawmills or fastened together into different rafts to be further transported over larger waters. In the rivers, which are cleared and provided with different kinds of constructions, the logs are usually allowed to float separately, but much work is necessary before they all reach their places of destination.

The driveways are divided into districts, and these are subdivided into "shifts" or tracts, and in these certain persons are appointed whose duty it is to put out into the water all logs that float to the shore. When the logs get stuck in a waterfall or obstructed in some other manner and form a log jam, the men must hurry out to break the jam, although there may be danger to life. The men are under the supervision of "floating foremen," and the latter under a floating chief. By knocking and scraping against each other the logs are damaged in the ends, and therefore about 30 cubic meters are allowed on each log when the final transaction is made.

The total export of wood products from Sweden in 1897 amounted to \$97,662,700. Of this amount more than half, or \$49,153,356, was received for exported wooden wares, which, therefore, in regard to value, form the chief export. Of raw material exported, boards and planks amounted to \$34,946,000, beams and rafters to \$1,081,000, ship timber, masts, etc., to \$1,080,000, and pit props to nearly \$1,805,000. Of manufactured wooden ware, wood pulp was exported to a value of \$6,000,000, turners' and carpenters' finished products to a value of \$2,081,000, and matches to a value of about \$1,811,000.

The export has increased to a great extent, especially in regard to boards and planks, as can be seen by a comparison between 1871 and 1897. During the former year the value of the export of these articles was only \$12,216,000, while in 1897 it amounted to nearly \$35,000,000.

The cubic bulk of timber which brings this income amounts in round numbers to 7,000,000 cubic meters of raw material and 1,200,000 cubic meters of manufactured wooden ware. While the largest part of the exported raw material is composed of coarser and relatively dearer dimensions, the largest part of the raw material exported is less expensive material (pulp wood, staves, etc.). Similar timber enters also largely into export articles not classed as wood products, such as paper, pasteboard, etc. The amount of paper, pasteboard, etc., etc., made from wood pulp is considerable.

The wood-pulp industry of Sweden consumes nearly 2,000,000 cubic meters of raw material. To the amount of wood charcoal that is used for mining purposes the woods contribute 4,500,000 cubic meters. But the very largest amount is used for the country's own needs as fuel, buildings, fences, glass works and brickyards, railroad ties, telegraph poles, boats, etc. More than 28,000,000 cubic meters of timber are at the present time taken from the Swedish forests every year, which is generally considered more than can be cut without lessening the forest capital itself, which nevertheless is far from being as great as would be required if all forest-bearing land yielded its greatest possible production.

11. LAW PROMULGATED JUNE 29, 1866, REGULATING FOREST CONSUMPTION ON LANDS LEASED BY THE STATE IN THE PROVINCES OF NORRLAND AND KOPPARBERG, AND STILL IN FORCE.

1. On lands in the provinces of Norrland and Kopparberg, of which hereafter the Crown may grant a lease, the owner shall have no other right to the forest of the estate than to take sufficient timber and fuel for household purposes, without survey; and, after survey and marking by the Crown officers, to appropriate and sell all that, in addition thereto, may be felled without injury to the forest. Neither may, for the purpose of cultivating the soil, the forest be felled otherwise than above is indicated, unless the owner, as hereafter stated, has obtained special permission thereto from the governor of the province.

2. What is prescribed in the foregoing section for estates arising from settlements on which the Crown may hereafter grant a lease shall also be in force for such estates arising from settlements on which lease already has been granted, and where the prescribed duties of building and cultivating have not been fulfilled within the time specified; and our respective governors of the provinces shall, in order to ascertain whether such is the case or not, as soon as convenient, and at least within the time when, according to existing rules heretofore, settlements ought to be inspected, order an inspection to be held in the order prescribed, at such settlements on which the Crown has granted the lease, before the issuing of the regulations, and the accord hereof to be transmitted to our governor of the province. Should at any settlement the prescribed duties of cultivating and building not have been fulfilled within the time heretofore specified, our governor of the province shall, by a special resolution, from which appeal may be had in usual order, and where there can be no question of dispossession, declare that, since the settlement, when the duties of building and cultivating have been fulfilled at some future period, the owner will only have such right to the forest as is stated in § 1.

3. It shall be specially stated in all the resolutions by which a settlement is transferred under the title of "skattehemman," or copyhold estate, whether the owner shall have full right to the forest belonging to the same or only enjoy the limited right mentioned in section 1; this ought to be recorded in the ground-rent book.

4. Any owner of copyhold estate mentioned in sections 1 and 2 who shall infringe the right to the forest of the estate given him by this law will be punished as for unlawful felling of forest, as per the twenty-fourth chapter of the penal law. The officers of the forest crops, as well as the foresters, shall be entitled to prefer charges against such offenders, and to seize unlawfully felled timber. The party who makes the seizure shall receive 20 per cent; the balance shall go to the forest-planting funds.

12. FORESTRY INSTRUCTION.

The principal institution in Sweden for instruction in forestry is the Royal Forest Institute, at Stockholm. It is pleasantly situated on a rise of ground in a grove close to the bridge as one turns from the city to enter the Deer Park. The course of study occupies two years. Tuition is free. Candidates for admission must have sound health, be neither under 18 nor over 28 years of age, and must have passed an examination such as admits to the university, which includes a knowledge of the German language and either the English or French. Among the studies pursued are the classification and division of forest, forest culture, and the quality of timber, forest technology, climate and soil, forest botany, forest insects, art of hunting, mathematics, forest and game laws, map drawing, etc. Four pupils receive from the State a stipend, as assistance, of 250 rik-dollars each per year. Graduates are regarded as members of the forest "stat," or corps, and are in the line of promotion therein, their first appointment being that of assistant chief of range, which is generally received immediately after graduation and opens the way to their earning about 600 rik-dollars a year in surveying and other work connected with forest. In ten years they can be promoted to "Jilgmästare," or chief of range. Above this last office is the position of forest inspector, which has been created for three or four years. Fifteen thousand three hundred rik-dollars are annually appropriated for the support of the institute. There are four active instructors, namely, the director and three "lektors," or teachers.

Besides the institute there are, in Sweden, six forest schools which are principally supported by the Government and located at the following places:

Tierps, Upsala County; Ombergs, Östergötland County; Böda, Calma County; Daniels Lands, Christianstad County; Hunneberg, Elfsborg County; and Silbre, Wester Norrland County. Tuition at the forest schools is free, and, besides, 10 pupils at each school receive board and lodging free. The course of study lasts eight months. Some knowledge of the common branches taught in the folk-schools is all that is required for admittance. A graduate of a forest school can be employed as a forest watchman at about 300 rix-dollars per year and use of a dwelling and patch of ground.

THE FOREST INSTITUTE—ITS OBJECT AND ORGANIZATION.

[Regulations issued May 25, 1860.]

1. A suitable locality in the royal park, near Stockholm, shall continue to be placed at the disposal of the Forest Institute, embracing lecture rooms, library rooms for collections, the director, one teacher, and one porter, also necessary ground for nursery, tree planting, and target ground; a suitable forest in the vicinity of the city shall also be placed under the regular care and management of the institute, in order to impart to the pupils practical knowledge herein.

2. In order to teach the pupils surveying, appraisement, and the technical terms of the forest, they shall, during a certain time every year, be employed in forests suitable for the purpose, under the direction of the teachers; separate funds will be assigned for this purpose.

3. To assist the pupils during their stay at the institute, a certain number of stipends, the amount of which will be separately fixed, will be assigned to such indigent pupils who have made themselves deserving of the same through industry, skill, and good conduct.

4. The institute is to be managed by a director, appointed by His Royal Majesty, and the director, together with four teachers, also appointed by His Royal Majesty, will furnish the instruction, viz: One, the care and management of forests; one, hunting and forest laws; one, natural history; and one, mathematics. These teachers will be entitled to their years of service as merits equal to the forest and chase officers of the Kingdom, the two latter only in case they have graduated at the Forest Institute. For the appointing of director, as well as teachers, the forest administration will nominate candidates. At the institute is also a porter, appointed by the director, and may by him be removed.

5. The course of instruction shall embrace mathematics and natural history to the extent required for the superintendence of forests and the chase; knowledge of the regulations for the forest and the chase, bookkeeping, and of the forms for forest accounts; hunting; theoretical and practical knowledge of forest appraisement; cultivation of wood and forest technology; as well as expertness in surveying, map drawing, levelling, and shooting.

6. The course of instruction will be continued during two years, counted from the commencement of the month of June every year, and be so arranged that fully educated pupils may yearly graduate and new ones be admitted in their place.

7. Pupils who wish to obtain certificates of having graduated shall, having previously undergone a probation at a public examination, manifest sufficient knowledge and skill in all the branches which they have been taught at the institute. In order to obtain a certificate for forest management, the pupil shall prove himself to have satisfactorily constructed a map, with regular plan of forest surveying and cultivation.

8. The instruction shall continue during the whole year, with the exception of three week's vacation during Christmas and one week after the yearly examination, and shall be thus regulated, that the pupils acquire from the commencement of October until the end of May, theoretical and such practical knowledge as local circumstances at the institute admit of, and that during the summer months the pupils are occupied in the forests of the Government and under the direction of the teachers with surveying and estimating of forests and with the most usual modes of the cultivation, care, and felling of trees.

9. Every year, at the commencement of the month of June, the pupils shall be publicly examined in all the subjects in which they have received instruction. The pupil who, having previously undergone a probation, proves himself at the examination to possess the knowledge and skill mentioned in section 7 may, without regard to the longer or shorter time he has been at the college, receive due certificate.

THE DIRECTOR OF THE FOREST INSTITUTE.

10. The director ought to have made himself known as possessing knowledge and experience of forest managing and shall live within the locality of the institute, in order properly to exercise his functions. His duties shall embrace not only the administration of the institute and the responsibility of its operations and of the completeness of the instruction, but also to promote the development of and spread throughout the country the science of forest management.

It shall consequently be the duty of the director—

(1) To quarterly collect from the treasury of His Royal Majesty and the realm, at the request of the forest administration, the funds assigned to salaries and maintenance of the institute; to dispose of these funds according to regulations, and for each calendar year account for their disposal, which accounts shall be delivered before the end of the next following February to the forest administration for auditing;

(2) To watch over the care and maintenance of the ground, buildings, nurseries, archives, library, collections, tools, implements, and other movables of the institute, and to see to it that complete lists of the same are made out and always at hand. He shall, however, according to what is stated below, have right to suitably distribute between the teachers the administration and care of collections, tools, and the movables;

(3) Having examined the certificates produced and the amount of knowledge possessed by the candidates for admission to admit them as pupils, and, according to statements of the teachers, separately for each branch, issue certificates to pupils who have finished their course, and to propose to the forest administration the distribution of the assigned stipends among such pupils who shall be considered most deserving of the same;

(4) To issue regulations as well for the maintenance of good order and morality within the institute as for the suitable course of teaching and the manner of imparting the same, for which purpose the director shall make out a regular table of instruction, so that the business be properly distributed between the teachers, and the time advantageously employed to the benefit of the pupils;

(5) To himself instruct in one of the head branches of forest economy as well as, business permitting, be present at the preliminary examination of the pupils in the other branches;

(6) To endeavor in every possible manner to promote the knowledge and spread of an improved forest economy and management of the chase within the Kingdom, for the purpose of which he must keep himself informed of the progress of the science and technical terms of the forest, even in foreign countries, and to write and publish pamphlets on the subject whenever circumstances require;

(7) To report to the forest administration partly such business which requires the decision of His Royal Majesty and partly such steps in regard to an improved forest economy and management of the chase within the Kingdom which may be found necessary;

(8) To make such reports or give such information concerning the forest economy and the management of the chase which the forest administration may demand, as well as to render to the same yearly accounts of the operations of the institute; and

(9) To give the porter instructions in regard to his attendance and other duties at the institute.

THE TEACHERS AT THE FOREST INSTITUTE.

11. The teacher of forest economy ought to have graduated at the institute with honors, and thereafter, on his own responsibility, managed a forest district, and as his services are constantly required he ought to live within the institute. This teacher shall—

(1) Instruct and examine in all the branches of forest economy in which the director himself does not teach; and, besides, practically instruct the pupils in surveying and estimating of the area of forests, and the cubic contents of trees, construction of maps, valuation of soil, growing and felled timber, to collect and preserve seeds, the laying-out and care of nurseries, forest growing and planting, the position of seed trees, clearing, to quench quicksand, felling of trees, assorting and marking of timber, as well as to conduct a party of the pupils in the forests for practical measuring, estimating, and dividing of forest land;

(2) To have under his care, and to account for, the archives, library, and movables of the institute, with the exception of those for which the teacher of the chase and regulations is responsible;

(3) To manage the economy of and account for the forests assigned to the care of the institute;

(4) To assist the director in watching over that given instructions are followed, and in maintaining industry and order among the pupils; and

(5) To take command of the place in the absence of the director.

12. The teacher of the chase and regulations shall have graduated at the institute with honors, and thereafter served at the forest and chase corps of the Kingdom. This teacher shall—

(1) Instruct and examine in the knowledge of firearms, shooting, the theory and technical terms of the chase, forest and chase regulations, and bookkeeping;

(2) Assist at the practices in forest economy, and conduct, during the summer season, a party of the pupils on practical measuring, estimating, and dividing of forest land;

(3) To exercise the pupils in target practice, and also, when there is an opportunity of hunting and driving game, instruct the pupils in the care of wolf pits, traps, nets, and cages; the making and care of hunting implements, the keeping of forests, as well as to prefer charges against poachers and other offenders against game and forest laws; and

(4) To take care of and account for the tools and collections of models of the institute, as well as of the forest and hunting implements, and of what belongs to the target ground.

13. The teacher of natural history ought to have made himself known as thoroughly well acquainted with this science. His duties shall be—

(1) To instruct and examine in those parts of physics, chemistry, and mineralogy which are required for the knowledge of forest climate and soil, in general, and forest botany, and in zoology, as far as this branch of knowledge is connected with the forests;

(2) To instruct in the manner of preparing herbaria, and of stuffing and preserving animals and insects;

(3) To conduct the pupils on mineralogical and botanical excursions, and to practice with them the examining of soil and plants;

(4) To instruct the pupils during visits to the museum of the Academy of Sciences; and

(5) To take care of and account for the zoological and botanical collections of the institute, and to make out complete lists of the same.

14. The teacher of mathematics ought to have made himself known as thoroughly acquainted with this science. This teacher shall instruct and examine in arithmetic, algebra, planimetry, stereometry, trigonometry, conical sections, geometrical constructions, descriptive geometry, general and forest architecture, elements of mechanics, and theory of the construction and use of mathematical instruments. He shall besides practice with the pupils the drawing and copying of maps, calculating of areas, sketching maps, surveying, construction of buildings and roads for forest purposes, with estimates of materials and labor, measuring of cubic contents, and adjustment of instruments. [There are at present six teachers in the institute.]

PUPILS AT THE FOREST INSTITUTE.

15. In order to be admitted at the forest institute application shall be made to the director within the middle of the month of May [now before the 1st of July] and the following certificates annexed to the same:

That the applicant is at least 18 and not above 28 years old; that his constitution is good and faultless, and not affected with any kind of incurable disease; that he has always conducted himself well; that he either has passed such examination and obtained certificates of approval in mathematics, natural history, and Swedish grammar, which entitles him to enter the universities of the Kingdom, or that he has been examined by the appointed teachers at any of the elementary schools within the Kingdom in each of these branches, and found to possess sufficient knowledge therein to enable him to graduate from the school; also, that he has, during at least one year, with some forester practiced and acquired sufficient skill in the economy and surveying of the forest.

16. Applicants whose applications are complete, and who consequently may expect to fill the vacancies at the institute, must publicly and in the presence

of the director be examined by the teachers in arithmetic and algebra, planimetry and stereometry, general botanies, and zoology; also, to write a Swedish theme.

17. Those exhibiting the greatest knowledge shall have the preference of being admitted to the institute.

18. At the commencement of every year the director shall propose to the forest administration for receiving of stipends those of the pupils who are in need of assistance and have shown themselves most deserving of same through industry, skill, and orderly conduct.

19. The pupils shall obey the orders of the director and the teachers, orderly and decently conduct themselves, follow the regulations at the institute, and attentively and industriously profit by the instructions.

20. Should the pupil disobey the orders of the director or the teachers, create any disturbance at the institute, conduct himself in a disorderly manner, or neglect his studies, he shall receive warning from the director. Should he not then change his conduct, but continue his offenses, the director shall, after having consulted the teachers, send him away from the institute. [There are now a higher and lower course at the institute. For admission to the higher course applicant must have graduated at the forest school, Omsberg.]

THE FOREST SCHOOLS—THEIR OBJECT AND ORGANIZATION.

21. Suitable localities, large enough to permit both teachers and pupils to live there, shall be placed to the disposal of the forest schools at such places as will be especially determined upon.

22. To a certain number of pupils, unable to maintain themselves at the school, sufficient assistance shall be given, according to what is therefor specially prescribed.

23. The forest schools shall be managed, under the superintendence of the nearest chief of range, by a teacher appointed by His Royal Majesty the King, after having been proposed to the situation by the governor of the province and with the approval of the forest administration; this teacher shall be assisted by a ranger, nominated by the forest administration.

24. The instruction at the forest school shall embrace the first four rules of arithmetic and the rules of proportion in whole and decimal numbers; knowledge of scales for plan drawings, as far as required for making of maps and measuring distances; knowledge of square and cubic measures with practical application at the measuring of the extent and contents of surfaces and solid bodies; knowledge of the nourishing organs of the forest trees and of their food and the natural conditions for their thriving; knowledge of the most dangerous insects of the Swedish forest and of the manner of destroying them; the chief principles of rational forest economy, and knowledge of the rules existing for the peace and keeping of forests, marking and carrying of timber, hunting, and also of the legal form for entering charges. The pupils will also be practiced in marking out and measuring of forest lines: tilling places and sowing fields; calculating of the cubic contents of trees and timber; the position of seed trees; sowing by hand and planting, as well as the preparing of the soil for forest growing; collecting and assorting of forest seeds; clearing and cutting, assorting, and piling of timber; marking cattle and making out of grazing lists; laying up and keeping patrol lists; making out lists of unlawfully felled timber on which embargo has been laid; monthly reports and service accounts; the trapping of beasts, and the grand chase.

25. The course of instruction shall begin on the 1st of October every year and continue until the middle of the following June, during which time all the respective subjects and exercises shall have been taught to the pupils, whereafter they are publicly examined in the presence of the chief of range in order to ascertain the knowledge and skill they have acquired.

26. The pupil who has satisfactorily passed the examination is entitled to receive certificate of approved skill, issued by the chief of range and the principal of the school.

THE TEACHER OF THE SCHOOL.

27. For the competency as teacher at the forest school, which office entitles him to count as many years of service within the forest and chase corps, the applicant shall have graduated at the forest institute and received certificate of approved knowledge, besides having been forest manager on his own responsibility. This teacher is the chief in command at the place, the principal of the

school, and accounts for and is responsible for the proper management of the school. He shall, consequently, quarterly receive the funds assigned to the school, use them with judgment, and yearly account for the same, which account shall, within the time specified in § 10, sec. 1, for the forest institute and for the object mentioned in the said section, be forwarded to the forest administration through the governor of the province. It shall, besides, be his duty to arrange the teaching and exercises to the benefit of the pupils; to keep good order and decent conduct within the school; to impart himself the theoretical knowledge, and to superintend and correct the exercises and work in the forest. He shall also render yearly report over the operations of the school, which is forwarded to the forest administration through the governor of the province.

THE ASSISTANT.

28. The assistant must have made himself known as steady and orderly, to be able to write, and well acquainted with all kinds of forest works. He is subordinate to the direct command of the teacher; he has the care of all the implements and materials of the school, for which he is responsible and shall account for to the teacher; manages the school in the absence of the teacher, and is responsible that the exercises and works are properly done, and assists in keeping good order among the pupils.

THE PUPILS OF THE FOREST SCHOOL.

29. Those wishing to be admitted to the forest school shall make their application to the principal in their own handwriting, with annexed respective certificate of a clergyman, of good conduct, and of good and faultless bodily constitution, and if the applicant has been in service, a service certificate; the applicant shall be able to read fluently Swedish and Latin letters and writing, write a legible hand, know the first four rules of arithmetic, and be from 20 to 80 years old.

30. Having examined the application and the applicants, the principal of the school shall admit as pupils the most skillful and of best conduct.

31. The pupils shall obey the orders of the teacher and assistant, and observe industry, order, and good conduct. Should the pupil disobey the teacher or the assistant, disobey the rules of the school, be neglectful or disorderly in his conduct, or should he create disturbance, he shall receive warning of the principal; should he not then change his conduct, but continue his offenses, the principal shall send him away from the school.

PRIVATE FOREST INSTRUCTION.

32. For the establishing of forest schools in the respective provinces of the Kingdom, and the education of competent assistants for managing private forests, the Government will yearly contribute as far as the funds will permit, provided the communities which apply for such assistance shall fulfill the following conditions:

(1) That the community shall place requisite locality to the disposal of the school, furnish the teacher as well as the pupils with apartments, and pay for the maintenance of the school;

(2) That the organization of the school and the proposed rules for its operation has been sanctioned by His Royal Majesty; and

(3) That the operations of the school, of which a yearly report shall be made to the forest administration, shall be exercised under the superintendence of the nearest chief of range and the forest administration.

13. REGULATIONS FOR THE DIVISION OF THE PUBLIC FORESTS FOR THE PURPOSE OF SYSTEMATIC ECONOMY.

[Issued June 29, 1867. Drawn up by Mr. C. A. T. Björkman.]

1. The dividing of a forest consists in its delineation on a map with description and economical plan based on careful estimates having a view to the future of the forest and the highest reasonable income that can be derived from it.

2. The allotting is effected so that there may be introduced, as circumstances require, high-forest culture with tract cutting or systematic thinning, or, nevertheless, for applying low-forest culture.

3. Forest is divided, according to its extent and nature, into more or less blocks. Smaller forests, however, may each comprise only a single block. The block is divided into divisions or parcels, whose limits are generally determined by natural formation or permanent marks, and these again into subdivisions, including differences which have been observed in surveying, delineating, and estimating the forest.

4. In the surveying is noted only such differences of the forest stand and grounds as, according to the above-mentioned method of forest work, exercise some influence thereon; and with the objects and differences noted at the surveying shall be added on the map the boundaries exactly to correspond with the facts. When a correct map happens to have been previously drawn up, a copy of it, with requisite additions, shall be used in the allotment of the forest.

5. The map of the forest shall be drawn up on such scale as allows requisite clearness in specifying what should be noted thereon for the economy of the forest.

6. The forest is estimated in cubic feet or in cords of 100 cubic feet (Swedish) solid measure, except when the allotment or dividing takes place for thinning (applicable to heavy timber), when the estimate is made by number or piece. The estimate ought, as near as possible, to correspond with the reality, but had better be too low than too high.

7. The description shall include all important matters which, at the execution of the allotment, can be of weight for the economy of the forest.

8. The plan of management is drawn up for a period of twenty years and ought to include the requisite prescriptions as to the manner of working the forest, rotation time, consumption, culture, and the other means of administration which have not already been prescribed by the public statutes.

9. Tract cutting will have the preference, as a manner of working the forest, except where, from local circumstances, it is unsuitable.

10. The rotation period should be extended as far as is necessary for raising the different sorts of trees and forest production which are counted on from the forest, but without occasioning such delay in consumption that any part of the forest shall thereby receive injury or deteriorate in value.

11. The estimate of what shall be consumed during the period of division or allotment shall be based on the forest's growth, the extent of ground, and on the known quantity of wood and timber, ascertained by careful calculation, whereof no more may be taken out than corresponds with the growth of the forest during the said time.

12. During the last year of the division period a revision is made for searching out the changes the forest has undergone and for drawing up the economy plan for the following division period.

Moreover, the Government having authorized the administration of forests to issue regulations which may be required in conformity with the above principles, the administration of forests has found it reasonable to ordain as follows:

1. The method of working a forest, mentioned in paragraph 2, above, can, where necessary, be introduced on the same block, though on separate parts thereof; for example, forest-grown rocky hills, moss tracts, or other land on which systematic thinning seems an object, also such tracts as seem suitable for low-forest culture, may enter into the same plan of economy with tract cutting, where the grounds have not sufficient extent for more than one block.

2. In dividing the forests into blocks, regard is had that as far as possible the older, middle-aged, and young forest stands are in suitable relations to each other, also that the block obtains a proper form. The ground allotted in the block for tract cutting may not exceed "6,000 quadrat ref" (1,306 acres). With the introducing of systematic heavy-timber thinning, block allotment is fixed according to the means for floating, and accordingly a connected forest of even 12,000 acres may be reckoned to a block, providing the product therefrom can be floated on the same water course. Lands whereon low-forest culture is introduced, and which are not entered in the economy plan that has been fixed for tract cutting are divided into blocks of at most 120 acres. When blocks are not situated apart, they ought to have natural boundaries, as water courses, marsh, and rocky-hill extents, etc., or nevertheless be bounded by highways or fences; but if such do not exist, they are separated by means of a line cleared through the forest to the width of 20 feet.

3. In dividing the block into parcels or divisions, the principal object of which is to facilitate "orienting" or astronomical directions, and clearness in description, likewise attaining an approximating homogeneous stand, the same is to be observed concerning their boundaries that has just been mentioned in respect to blocks. Nevertheless the separating lines may be cleared only the width of 10 feet. The forest land of a division should not exceed 200 acres, except in forests which are allotted for merchantable or heavy timber, within which, as comprising the division or parcel, may be reckoned only those parts divided by natural boundaries. Connected forest blocks of 200 acres extent or less constitute only a division or parcel.

4. The surveying of a forest, where it is so required, may be based, as heretofore, on parallel lines running in right angles, or over valleys and summit extents in oblique direction. Nevertheless hereafter these lines ought not to be cut or cleared more than is necessary for making them visible, but shall instead be blazed to a breadth of 10 feet. In the allotment of the forest for the purpose of systematic heavy-timber thinning, smaller impediments, unless sketched on the map, shall only be noted in the description.

5. Forest maps shall be drawn up on a scale of $\frac{1}{10000}$ of natural size, with these exceptions: Lands allotted for heavy-timber thinning shall be mapped on a scale of $\frac{1}{10000}$ of natural size; lands for low-forest culture, according to separate plan of economy, shall be mapped on a scale of $\frac{1}{10000}$ of natural size. A separate map is drawn up for each block. On the just-mentioned maps of $\frac{1}{10000}$ scale two or three blocks may, nevertheless, be contained, according to circumstances. When the forest is composed of several blocks, with map for each, a comprehensive map of the whole forest may be prepared, showing the relative situation of the blocks, on a scale of $\frac{1}{10000}$ of natural size; and with heavy-timber thinning $\frac{1}{10000}$ of natural size. The map of the floating courses, below mentioned, are drawn on a scale of $\frac{1}{30000}$ of natural size. When a comprehensive map on the scale aforementioned has been prepared, the floating courses should be shown thereon, and in such case no separate map of these is needed. The maps shall be well and plainly drawn, colored, provided with names of bordering estates, forests, or the like, written around, title, scale, and north direction whereon the variation is observed. The cleared or blazed lines and the separating lines pertaining to the project for period allotment or division shall be drawn on the map; also the yearly clearing or cutting bounds in the first period; the latter, nevertheless, only on maps of forests which are not under the immediate administration of the forest corps.

6. The valuation or estimate of the forest is undertaken in conformity with the recognized principles of forest science separately for each subdivision, with regard to differences of ground and forest stand.

7. The description consists of general and stand description.

8. The general description is based in certain parts on stand description, and shall under separate titles account for—

History of the changes which the forest has undergone financially, state and administration of possessory right, wherewith, if practicable, the official proceedings may be introduced on which the changes or improvements have been based, and the influence of these, of forest fires, of injuries by storms and the like on the forest's present condition.

The uses or service with which the forest, from one cause or another, is charged; how far these are based on culture or resolutions, and in the latter case what, also, the influence on the forest which the uses produce.

Boundaries on adjoining stranger owners; also, when the forest belongs to homestead or farm, on the thereto belonging arable and pasture land; wherewith for that case any land which did not before belong to the forest, but which is included in the allotment, with the reason therefor, ought separately to be given, regard being had to what is prescribed in royal forest regulations of the 20th June, 1866, section 38.

Nature of the forest land, nature of the forest stand in general, according to stand description.

Block allotment or dividing, and motives for the same.

Prevailing winds, and their effect.

Depredations and wastes: to what extent the forest is exposed to such, and their nature.

Watching or care; how this is ordered and how far sufficient.

Pasture and autumn mowing, and what effect such use has on the forest.

Selling of the produce of the forest, where this can come in question, wherewith, when this is dependent on opportunity of floating, a map of the floating

course in the forest and in its neighborhood is annexed, providing such map can be had without separate survey.

With several other relations which, in and for the forest administration, can be of weight, which like the above-mentioned ought to be stated under separate titles.

9. *The description of the stand.* Table No. 1, 1, which is prepared in tabular form, and which, with the exception of area reports, composed in proportion to the progress of the survey and valuation, contains the following columns:

1. *Division*, or parcel (in the Swedish "skiften"), wherein is introduced the name of the division, in what block it has been divided, also the letters whereby these are denoted on the map.

2. *Subdivision*, in which column is placed the letter whereby the differences of the forest land and forest stand have been denoted on the map.

3. *Extent*, wherein the area is given in new measuring (quadrat ref and quadrat poles), and which column is subdivided in two, namely:

a. *Forest land*, where regard is had to the area of forest-bearing ground, the subdivisions are given as—

a. *Forest-grown*, or—

β. *Bare*, under which latter designation may be introduced as well such land as produces only bushes and scattered trees as that which shall be cleared, during the division period for effecting satisfactory regrowth; also—

b. *Impediments and land not regarded sufficiently fertile for forests*, under which is noted such rocky hills, marshes, mosses, etc., which can not be counted on to bear forest; also such sand holes, ways, and tilled places, etc., whereon forest will not be grown.

4. *Land where under the subdivision is described with regard to the quality of the land and soil.*

5. *Situation*, where the situation is described as well with regard to moisture as in relation to prevailing winds.

6. *The forest*, which column is subdivided into four:

a. *Sort of trees*, wherein is introduced the kind of trees the forest stands consist of, with special remarks as to the prevailing—

b. *Growth, closeness, windfalls, previous treatment, etc.*, where a fuller description of the forest stand is given, as well as how the same seems to have been treated previously.

c. *Amount of production*, wherein is noted the number of cords, at 100 cubic feet (Swedish) solid measure, which the growing forest contains.

a. *By quadrat ref* (say 10,000 square feet) in whole and tenths of cords, and—

β. *By subdivision* in whole cords; or nevertheless with heavy or merchantable timber-thinning number of sticks per 10,000 square feet and in the whole subdivision; also—

d. *Age class*, wherein is introduced the prevailing ages of the forest stand, designed to show twenty-year-age classes, from 1-20, 20-40, 40-60 years, etc., whereafter, under the title of *treatment of the stand during the division period* (Tables Nos. 1, 2), follows:

7. *Manner of working the forest*, in which column is noted how far the stand shall proceed under allotment of tract cutting, or if thinning or low-forest culture should be there introduced; and—

8. *Special means*, including accounts of what ought to be adopted for the stand and land during the time for which the division is regarded to be effective, whereto shall be stated for the occurrence of help pruning or preparatory cleaning (or cutting) that amount of wood and timber which thereby, according to valuation, it is considered can be obtained per 10,000 square feet. The area, as well as quantity of wood and timber on the subdivisions may be summed up for every division or parcel, and a compendium introduced at the end of the table, wherein the whole of the area of the division or parcel and quantity of wood and timber noted shows the extent and bulk of the wood and timber, as well as a like compendium for the separate blocks to show the whole area of the forest and stock of wood in cords, or with heavy or merchantable timber thinning in timber.

To the description of the stand belong equally with tract cutting a compendium of the area which the different age classes occupy and the timber and wood mass each one contains. The description ought to be accompanied by the length valuations introduced in the forest.

10. *The plan of management*, of which a sketch ought to be made at the place of employment, so that the state of the forest in case of need may serve for further direction, contains the following titles:

Manner of working the forest, under which is noted for every block how great part of forest land and quantity of wood and timber suits the one or the other of the mentioned methods of working the forest, and where so required the motives for the distribution of the forest ground between them.

Rotation, under which title separately for each block and method of working the forest with necessary motives may be introduced the age which, in general, it is thought the forest should have before the same can be consumed; whereto with heavy timber thinning under the title in question ought to be given the time.

Thinning time, during which thinning shall be done.

Consumption, which title for every block contains a calculation of what, during the whole of the twenty-year period, and during every year of the same, should be consumed; also report where and how consumption ought to be effected separately for forest adapted to tract cutting, thinning, or low forest culture; and there ought therewith to be added in tabular form, equally for the two foregoing titles, a compendium (Table No. 2), to which is added a report for the whole block and area, and amount of wood and timber summed together.

Forest cultivating (with special regard to sowing and planting), under which is noted in table form (Table III), by block division and subdivision, the area of the ground which during the period shall undergo complete forest cultivating (that is, clearing and raising forest again on the same place by planting or sowing, help culture, drainage, or other means for advancing regrowth, whereto may be noted the nature of the measures and steps which, in every case, shall be adopted.

Project for the future division of the forest in respect to rotation and thinning periods, under which title, and with reference to the map of the forest, is indicated how it is considered, on the basis of the present state, the subdivisions ought to be united for hastening, and with least sacrifice of growth, to form suitable parts of the forest, corresponding with the twenty-year periods, separate report being made for the division of the ground in every block for tract cutting, thinning, or low forest growing.

Pasture and autumn mowing, under which is noted that which, with regard to the subject, should be observed during the division period.

Means of facilitating the transportation and sale of wood and timber, under which title is given, as may happen, the needful scheme for ways, improvement of floating courses, disposing of the sorts of timber necessary for the region, etc.

Administration and care, wherewith representation is made of what, in said respect, ought to be adopted to secure suitability of plan of economy, therewith always complying with what is prescribed by the control book for consumption and forest cultivation.

11. *Rotation with tract cutting* is determined so that, after knowledge is acquired of the kinds of trees the forest will yield, and the growing time required for them, the area of the forest-grown land is divided into the number of twenty-year periods which said growing time contains; thus, with one hundred and forty years' growing time by 7, with one hundred and twenty years by 6, etc., whereby is ascertained the extent on an average can be consumed during every twenty years. Thereafter is examined through comparing the extent of this latter with the area which every age class takes up, how long time consumption in each and every class, beginning with the oldest, should require, wherewith also knowledge is gained of the age of the forest at the time of consumption. If then it is found that any essential part of the forest should be consumed first after that which has taken injury from too high age, so ought said examination to be renewed in a twenty years' shorter time, and in proportion to the therewith greater area of consumption, till its result shows that the forest can be consumed without losing in value when the last-mentioned time is adopted for rotation time.

With the introduction of regulated timber thinning it is seen, too, that the thinning time becomes so sufficient that a requisite number of trees may be able to grow to heavy timber by the time its thinning returns to the same tract which it before went over.

As well rotation as thinning time should contain a certain number of twenty-year periods.

Thinning time ought to be an equal part of rotation time.

12. The computation of what is taken out by tract cutting during the period is made thus:

Of that part of the forest-grown land allotted to tract cutting is assigned for consumption during forty years, two-sevenths of the area with one hundred and forty year, two-sixths or one-third with one hundred and twenty year, two-fifths with one hundred year rotation periods, etc. Out of the oldest age classes is taken off thereafter as great area as corresponds to said part. The forest which is found on the area thus taken off consists of that which can be consumed during forty years. Hereof is allotted for consumption during the first twenty years, out of the oldest or least growing stand, so great a part that the growing forest thereon, *without* including the grown, may attain to wood and timber mass equally with the growing forest on the other part, *with* reckoning or including that grown during twenty years. With the reckoning of growth, nevertheless, so-called growth tables may not be used unless the yearly growth of the stand running in the two-thirds is accepted as the average amount of what these during its filled age yearly grow.

In *thinning of heavy timber* is consumed, during the time adopted for thinning, all the timber found at the dividing or allotment besides half the quantity of heavy timber stuff which within the period of thinning can grow. Of this amount of wood and timber can thus be consumed during the twenty-year division period, with forty-year thinning time half, with sixty-year one-third, and with eighty-year one-fourth. In this way is taken off that part of the forest which shall correspond with the first twenty-year period, wherewith is observed, nevertheless, that only such land as bears heavy timber, or within the thinning period grows heavy or merchantable timber stuff, enters into the calculation, also that the part taken off does not more than twenty-five per cent exceed that which the land just mentioned, reckoned exclusively according to the area, shall have produced in the period. If it is found, notwithstanding such augmentation in area, the part taken or sold off does not contain the number of pieces of timber which according to the above-mentioned calculation ought to be had, the consumption is reduced to what the thus sold-off district for a period of twenty years can according to calculation give.

With other thinning the consumption's mass is calculated the same as is mentioned in regard to tract cutting.

In the dividing or allotment for low-forest growing, with separate blocks, the area is divided by that number of periods which the rotation time contains, after which the amount of consumption is fixed according to the bulk of production on that part which corresponds to the first period, wherewith, if so required, the growth is reckoned in the manner above written.

In the consumption calculated in harmony with the above principles is not included what, according to estimate, is obtained through preparatory thinning and help pruning or clearing up of found windfalls and dry forests, so-called cleaning-cutting, likewise neither the utilizing of stumps, roots, branches, and twigs.

13. When the division or allotment takes place in such forests as are mentioned in Chapters III and V of the Government's Forest Regulations of 29th June, 1866, with the dividing proceedings and maps shall special memorial be prepared, representing how far it is thought the forest, according to §§ 16 and 23 of said regulations, ought to be placed under the immediate care and administration of the forest corps, also if such is not the condition, the need of the products of the forest at the homestead or farm to which it belongs; also how far the forest is insufficient to supply said need, or nevertheless besides answering the requirement or leaving something over the same, and in the latter case the amount of surplus, also project for the forest rent, which according to § 17 ought to be reckoned, or that portion of clear gain which, on the principle of § 24 of regulations, can accrue to the resident occupied.

14. At the *revision* of the allotment which here above is ordained is drawn up accurate calculation of the older age classes, wherewith the map is intended for introducing noticed changes.

Revision shall also be had of the forest maps and plans of economy hitherto drawn up for the public forests, where these have been operative twenty years or more. Should the maps and allotment proceedings be found continuing suitable the drawing up of new ones may be dispensed with.

14. EXPLANATION OF CERTAIN TERMS IN SWEDISH FOREST SCIENCE.

Forest culture (skogs skötsel) includes the raising of forest, its treatment during growth, and its consumption.

By *consumption* of forest is understood the felling of trees in such a manner as to facilitate the effort of nature to produce new forest in place of the former.

Forest cultivating (skogs odling) is the raising of forest by means of sowing seed by hand or planting.

High forest is that which is not intended to be consumed till the trees have attained their maturity.

Low forest is that which comes from shoots from the roots or stumps of former trees and which may be consumed in a shorter time to give place to another similar crop—as, for instance, timber for hoops, hop poles, and the like.

Rotation period. The time required, commencing with the sowing, for a forest to grow and mature.

Tract cutting is the felling of such a portion of the forest as, according to a previously prepared plan, has been allotted for a year's supply, or such a portion as can be cut with due regard to the rotation period.

Regulated thinning is a manner of consumption or of cutting which is generally practiced in forests where the trees in the same place are of different age.

C. C. ANDREWS.

ST. PAUL, MINN., June 19, 1900.

The CHAIRMAN. Will you state to us in your own way the forestry situation of Minnesota to-day, both as to condition and amount, so far as you can?

General ANDREWS. We have what is called a forest preservation law, principally for the prevention of forest fires, which makes town supervisors fire wardens, also mayors of cities and village presidents. It is copied from the State of New York. This law was enacted in 1895 after the Hinckley fire, in which 418 people perished.

The CHAIRMAN. We looked over that territory yesterday.

General ANDREWS. Up to this year, according to the reports of fire wardens, the damage by forest fires in Minnesota annually averaged only \$32,000.

The CHAIRMAN. Since that law was enacted?

General ANDREWS. Since that law was enacted. The State has a forestry board which has been in operation for eight or nine years, under which we have acquired by grant of Congress 20,000 acres as a donation, which we call the burnt site forest. It is six years ago. That is rough country northwest of Ely. We have a thousand acres in Cass County, cut over land, given to the State by the late Ex-Governor Pillsbury. On that we have planted 230 acres, the forestry board has. The forestry commissioner, ex officio, is a member of the forestry board and also secretary. Two hundred and thirty acres principally of Norway spruce. We planted nearly half a million seedling trees from two to three years old. Those trees are in good condition.

The CHAIRMAN. When were they planted?

General ANDREWS. They were planted the past three or four years. They planted some this last spring.

The CHAIRMAN. Did you raise those or import them?

General ANDREWS. We raised the most of them. We imported 20,000 pine seedlings from Germany.

The CHAIRMAN. Has the Norway spruce been well tried up here?

General ANDREWS. The Norway spruce did well. We raised those from the seed which we sowed ourselves in the nursery there. So we

have had good success in planting. This little experiment shows that we can plant successfully at about \$6 an acre. We have in the Itasca Park 10,000 acres, which is called a forest reserve, but which is not to be treated for economic forestry purposes. It is treated as a park, as a place of resort, and the timber remains standing. We have got quite a good deal of original pine in that Itasca Park, the headwaters of the Mississippi. That is all that Minnesota has done in forestry.

The CHAIRMAN. You have quite a large amount of swamp land?

General ANDREWS. The State has a large amount of land, but not forestry land. The State owns about two and a half million acres of public land, of school and swamp land.

The CHAIRMAN. Isn't that largely spruce land?

General ANDREWS. There is some of it spruce land. There is considerable spruce on this swamp land, undoubtedly.

The CHAIRMAN. Has there been any survey or estimate of the amount of standing timber on that?

General ANDREWS. There has not. The State makes an estimate of this timber just preceding any expected sale. If it is going to sell any timber, it estimates that timber that it expects to sell in the next few months. It never makes any estimate before.

Mr. RYAN. Would it sell the timber on the land except it has an opportunity to sell the land?

General ANDREWS. It would sell the timber, yes. It would sell the timber as far as it can get a good price, without regard to the land. It retains the land and sells the land when it can.

Mr. RYAN. How much of the two million and a half acres that you now have has been cut over?

General ANDREWS. I am not able to say.

Mr. RYAN. About?

General ANDREWS. I do not suppose that a twentieth part of it has been cut over.

The CHAIRMAN. Is timber on land sold except upon application of some one for the purchase of it?

General ANDREWS. Yes; it is sold whenever the auditor, who is the land commissioner, thinks he can sell it to advantage. When he thinks the market is good he advertises it. He has cruisers sent out to explore and investigate and report to him the probable amount and he sells it at public sale—gives notice of several months and sells it at public sale.

The CHAIRMAN. Have you any information at all as to the proportion of the land that has forest on it, or spruce forest particularly?

General ANDREWS. No, I have not.

The CHAIRMAN. A good deal of it is what you call muskeg land?

General ANDREWS. A good deal of it is, yes.

The CHAIRMAN. Would be partly spruce forest, I suppose?

General ANDREWS. Yes, sir.

The CHAIRMAN. We saw a good deal of land on our trip through the State, a portion of which they said was school land, upon which there stood a good deal of thickly standing small spruce which is not muskeg, where nothing grows. You haven't any basis upon which to make an estimate on that?

General ANDREWS. I will endeavor to give some estimate of the spruce that there is in our forest.

The CHAIRMAN. Yes; I wish you would.

General ANDREWS. I compiled some figures for the Department of Commerce and Labor some six weeks ago. I would estimate, and my estimate would be simply from general knowledge without having counted the trees or measured them, of course, I would say that in the counties of Cook and Lake, which contain 2,828,000 acres of land, I estimate that there are 500,000,000 feet of spruce in those two counties. That is half a billion. That is at the rate of 5,000 feet to the acre on an average. I estimate that there are 100,000 acres of the 2,000,000 and over that will average 5,000 feet to the acre, either in pure spruce, which would be about all spruce or mixed with other timber. Then in St. Louis County, the next county west, which contains 2,091,000 acres of land, exclusive of water, I estimate that in that county there is 100,000 acres of spruce that will average 5,000 feet to the acre, making another 500,000,000 feet, which would be a billion feet for those three counties. Then we come to the counties west. Itasca and Koochiching counties contain 3,600,000 acres of land. I estimate that those counties contain 100,000 acres that will average 5,000 feet to the acre; that would be 500,000,000 feet. Beltrami County, next west, contains 2,750,000 acres, and that, according to my estimate, which I consider, while rough, as conservative, contains 100,000 acres, averaging 5,000 feet to the acre, amounting to 500,000,000 feet; that makes 2,000,000,000 feet in those counties. Then there are fourteen other counties that contain spruce, and which, in the aggregate, I estimate, contain 294,000,000 feet; that makes 2,294,000,000 feet for the whole State. That is board feet of spruce. The estimate in 1896 for spruce in the twenty-three forest counties was 1,050,000,000 feet.

The CHAIRMAN. They figure two cords to a thousand feet, I believe.

General ANDREWS. There are three cords, I think, to a thousand feet, according to Mr. Roth, of Michigan. That is my recollection.

The CHAIRMAN. All of these mill men that we talked to gave two cords to a thousand feet.

General ANDREWS. I am not competent to say how many cords there are, but I think Mr. Phillip Roth, of Ann Arbor, in his book on forestry, says that 3,000 feet constitute three cords—the same as three cords. That is what I understand Mr. Roth to say. I do not give my opinion about it.

The CHAIRMAN. All of these men here have given us two cords to a thousand feet. There is no way of getting that small stuff into board feet.

General ANDREWS. In regard to poplar, if you want that—

The CHAIRMAN. Now, on this spruce first. You figure two million thousand feet?

General ANDREWS. Yes, sir.

The CHAIRMAN. Which, at two cords to a thousand feet, would make four million and some odd cords?

General ANDREWS. Yes, sir.

The CHAIRMAN. Mr. Backus testified to us that in the Rainy Lake basin they had cruisers estimate practically all of that territory by forties, and had the figures, and they figured on the American side 11,000,000 cords of spruce. There is a wide variation.

General ANDREWS. Yes.

The CHAIRMAN. I suppose that would take most of the spruce in St. Louis County and all of the spruce probably in Koochiching County and a large share of the other.

General ANDREWS. I am giving my best judgment, without knowing the details.

The CHAIRMAN. I am simply calling your attention to this. You aimed to make a very conservative estimate?

General ANDREWS. Yes.

Mr. RYAN. It is conservative, judging by what we saw northeast of Duluth in some places.

General ANDREWS. I presume so.

The CHAIRMAN. Of course, you figure a hundred thousand acres in these different groups, 10 cords to the acre, practically.

General ANDREWS. And yet, with my estimate, that makes quite a number of million dollars' worth.

The CHAIRMAN. Oh, yes.

General ANDREWS. I have estimated that the forests of Minnesota are worth a hundred million dollars, and they are worth taking care of.

Mr. RYAN. Cruisers that were with us said that a great many of the forties that we went through contained 25 cords to the acre of spruce. It was the predominating timber.

General ANDREWS. I should think so, fully that; because for fuel the average wood will yield 18 or 20 cords to the acre.

The CHAIRMAN. What is the poplar up here?

General ANDREWS. It is the aspen and the large-leaf poplar; also what is popularly called the "Balm of Gilead" is a poplar, but whether that is used for pulp I do not know. I would think from its having so many knots that it would not be valuable for pulp.

The CHAIRMAN. None of the poplar up here is used for pulp to any extent yet.

General ANDREWS. We have got a good deal of poplar and balsam, too.

The CHAIRMAN. Poplar used for pulp wood is used with soda up to a small per cent.

General ANDREWS. My estimate of poplar in Minnesota—I could not specify the counties—but my estimate of the poplar is 4,014,000,000 board feet. That is very conservative, no doubt. In addition to that, the Balm of Gilead, which is a species of poplar, is another 1,189,000,000 board feet; balsam, 670,300,000.

The CHAIRMAN. You have no hemlock in the State, I suppose.

General ANDREWS. We haven't any. It is quite remarkable.

The CHAIRMAN. One of our men told us that he knew one township that was pretty well filled with hemlock.

General ANDREWS. I have never seen or heard of any.

The CHAIRMAN. One of the cruisers that we met, but I do not remember now where he said it was.

General ANDREWS. Our spruce is principally black.

The CHAIRMAN. That is swamp spruce, isn't it?

General ANDREWS. Yes.

The CHAIRMAN. Do you know who owns the most of this land—I mean in a general way—private individuals or corporations?

General ANDREWS. As a rule, it is owned by private individuals and logging companies.

The CHAIRMAN. Does the General Government own much of it outside of the Indian reservations?

General ANDREWS. I suppose the General Government owns certainly half a million acres of forest; I would not say of this spruce timber.

The CHAIRMAN. Is a good deal of the forest land in the Indian reservations?

General ANDREWS. Considerable.

The CHAIRMAN. As to estimates, those are only estimates?

General ANDREWS. Yes.

The CHAIRMAN. For instance, Mr. Rudolph Weyerhaeuser testified to us the other day that they bought from the General Government, after it had been cruised by the General Government, a lot of pine up in the Indian reservation upon which the estimate was 41,000,000 feet of pine, that they had already cut 49,000,000, and had half of it left. Of course, they bought it at so much a thousand, so that it did not make any difference about the quantity.

General ANDREWS. The actual results generally exceed the estimates.

Mr. RYAN. Not to such an extent as that, do they?

General ANDREWS. No; that would be an exceptional case. Have you taken any testimony in regard to the rapidity of growth of spruce?

The CHAIRMAN. We have found no one who knew anything about it, unless we strike the man now.

General ANDREWS. All I know about it is what I have read in Mr. Pinchot's book on the spruce in the Adirondacks. He showed that the growth there is 1 inch in diameter in seven years. It would take thirty-five years to make 5 inches and seventy-seven years to make 10 inches.

The CHAIRMAN. I said we had taken the testimony of no one who knew anything about it. I will take that back, because Mr. Weyerhaeuser testified he thought a spruce forest could be reproduced to the extent of 5 inches in twenty-five years.

General ANDREWS. I presume it might.

The CHAIRMAN. Mr. Pinchot and some of his foresters do not agree. We have varying testimony from them on that subject. We have collected on this trip a very interesting exhibit of disks cut from spruce logs for the purpose of demonstrating what length of time it will take to grow spruce trees or the length of time it has taken to grow them, and we have got specimens from 1 inch that grew in fifty years up to 10 inches that grew in one hundred years, and possibly some variations.

General ANDREWS. The Norway spruce grows more rapidly in Europe than our spruce grows.

The CHAIRMAN. It grows more rapidly here, doesn't it?

General ANDREWS. I believe it does; yes.

The CHAIRMAN. And the spruce that you planted here on this experiment, is that all Norway spruce, or have you planted some native spruce?

General ANDREWS. It is all Norway spruce.

The CHAIRMAN. It might be interesting to plant some native spruce by the side of it, as a matter of comparison.

General ANDREWS. Yes; we probably will.

Mr. RYAN. Is that a dry soil?

General ANDREWS. It is rather dry; most of it is rather dry. It is cut over Norway pine land.

Mr. RYAN. Do you think spruce will thrive as well or better in dry land than wet?

General ANDREWS. It needs moist land. It needs a fresh soil. It does not do very well on dry land. Spruce is a shallow-rooted tree. It does not go down in the soil.

The CHAIRMAN. We found in Wisconsin where we found spruce that it was generally growing scattered in with other forest trees, sometimes on fairly high land and apparently had grown much more rapidly than it does here in the low ground. Have you any idea as to the effect on these swampy forests which will be caused by drainage?

General ANDREWS. I think they will start a more rapid growth. The drainage of the land will improve the growth. Indeed, they do not grow any now in the bogs.

The CHAIRMAN. Is the State now engaged in drainage work?

General ANDREWS. There is a good deal of drainage going on.

The CHAIRMAN. The State itself is doing it?

General ANDREWS. The State appears to be doing it. I do not remember the details, but the State officers inspect it, the secretary of state. I have heard of the secretary of state and some State officers going around to inspect the ditches. We have a state drainage engineer, so that the work is being done under the supervision of the State.

The CHAIRMAN. Is it the policy of the State, then, to encourage the drainage of these low-area lands?

General ANDREWS. It is; yes, sir. There is a good deal of enthusiasm on the subject.

The CHAIRMAN. You have a good fire-protection law, as far as the law is concerned, have you not?

General ANDREWS. It needs to be improved a good deal. It started in as an experiment in a timid way fourteen years ago. We ought to have the law amended requiring the people who cut timber or wood to burn the brush and slashings and do it while the snow is on the ground. Captain O'Neill, the government superintendent of logging on Cass Lake, told me that in the past year they have adopted the practice of burning these slashings in the winter when the snow is on the ground.

The CHAIRMAN. Mr. Weyerhaeuser told us this morning that the Government had taught them, to their benefit, to burn the slashings while they were green.

General ANDREWS. I have tried twice to have a law enacted to burn the slashings, but without success. I shall try again this next winter.

Mr. RYAN. What objection is there to such a law?

General ANDREWS. They objected on the ground of its costing so much.

Mr. RYAN. They figure that it will cost more than the timber they might lose in fires would, do they?

General ANDREWS. Yes; and again they argue that it is dangerous to burn the slashings that it might produce so many fires.

Mr. RYAN. The fires they have had this year may change their views.

General ANDREWS. Yes. I see where in the village limits of Chisholm there were about 30 acres of ground that had been covered with slashings, and the presence of these slashings made it possible to burn Chisholm. If the slashings had been burned and the ground cleared, Chisholm would not have been in danger.

Mr. RYAN. The town was destroyed and some lives lost?

General ANDREWS. Most of the town was destroyed. There have been no lives lost in this State by forest fires.

The CHAIRMAN. You stated a while ago that up to this year, since that law was passed, the average was how much?

General ANDREWS. About \$32,000.

The CHAIRMAN. I think they have not reported. I think we have seen more than that much loss ourselves.

General ANDREWS. These fires that you saw were probably the fires of 1904.

The CHAIRMAN. No; recent fires, I mean.

General ANDREWS. They have every inducement to report. They are paid for making reports and they are liable to punishment if they fail to make reports. They have blanks furnished them to do it, and return envelopes.

The CHAIRMAN. We can see everywhere we have been in the State the result of your activity. If you had a good appropriation you could keep out the fires.

General ANDREWS. I speak of the fires before this year.

The CHAIRMAN. Is there any such thing as preventing forest fires by law or by imposing duties upon officials or individuals unless you have a regularly organized fire protection?

General ANDREWS. Patrol?

The CHAIRMAN. Yes.

General ANDREWS. Well, it is just about impossible. and there will be some fires, of course; there will be some settlers 3 or 4 miles away from anybody, out of sight, in dry weather, and they are clearing their land and the fire gets away from them and there it goes.

The CHAIRMAN. That is the way fires happen in the city.

General ANDREWS. Yes, sir.

The CHAIRMAN. Would anybody propose now to do away with the paid fire department in the cities?

General ANDREWS. That is true.

The CHAIRMAN. Don't you think that the same system in some form might be carried out for the protection of the forest and be worth the expense?

General ANDREWS. I do. I think if we had means to employ a competent person, a zealous and honest man, in dry weather, who would go around and be on the lookout, that he could accomplish a great deal. We depend upon town officers, who look upon the work as secondary. They consider that the duty imposed upon them of being fire wardens is not as dignified as that of supervisor.

The CHAIRMAN. I suppose that they consider that it is a duty that they do not care to perform unless the town itself is likely to be threatened.

General ANDREWS. Yes. Now, if we had patrols we would employ men in dangerous weather, and had sufficient means to do that we

could guard against fires to a greater extent than we do now, and if we had laws regarding the burning of slashings and providing that slashings near settlements or villages could be burned at the State's expense, we could do more than we are doing now. Notwithstanding the 22,000,000 acres of forest country, all the funds we have in a season of emergency is \$5,000.

The CHAIRMAN. For fire protection?

General ANDREWS. Yes, sir. We have not a dollar more than we had when we started, and I suppose the danger has increased a great deal on account of the activity on the Iron Range. For instance, Chisholm and the country around Chisholm, when this law went into effect, was a wilderness, nobody living there. Now there are 12,000 people living in that region. I suppose the danger is much greater on that account.

The CHAIRMAN. What would you say as to the subject of conservation of the present forest or reproduction of the forest?

General ANDREWS. I think that the State should immediately begin to replant, buying up the land which is only suitable for forest, land that can be bought cheap and not suitable for farming; that the State should engage in the work of reforestation and should plant 30,000 acres a year, the same as they do in Germany. Prussia has 6,000,000 acres of state forest, which yields \$9,000,000 revenue.

Mr. RYAN. Annual revenue?

General ANDREWS. Yes, sir. And employs many thousand people, and supports a million people probably.

The CHAIRMAN. Do you think it likely, considering the vagaries of politicians and the vicissitudes connected with politics and statesmanship, that the State will ever provide laws exempting from taxation forest-reproducing land in the hands of private owners?

General ANDREWS. I think it would to a certain extent tax the land as land, but not tax the timber until the timber is cut. I think there is quite a sentiment in favor of that. Of course, to carry that out the State would have to somewhat supervise this work and see that the land was being devoted to forestry—that the land was covered with forest. I suppose the proprietors would be willing to pay a tax on the land as cheap land if they could have the crop exempted from taxation.

Mr. RYAN. It would be practically out of the question to reproduce a forest without exempting standing timber during growth from taxation, would it not; that is, by private individuals?

General ANDREWS. Yes; I think so. It would take on an average on what we call forestry land—that is, third-rate land—land that is too hilly or sandy or rocky for farming—and that is the kind of land that forestry wants—on such land it would take eighty years for pine to reach merchantable size. Then it would be only from 12 to 15 inches in diameter. We know what the rate of growth is, because the German forests that have been managed on scientific principles for a century show that the rate of growth on such third-rate land is about 225 board feet to the acre in a year.

The CHAIRMAN. That is the average annual growth?

General ANDREWS. Average annual growth in a normal forest of pine.

The CHAIRMAN. When you spoke of planting 30,000 acres a year, what kind of trees would you plant?

General ANDREWS Pine, principally.

The CHAIRMAN. White pine?

General ANDREWS. It would depend on the kind of soil. The white requires a pretty good loamy soil. The Norway pine will thrive on poorer land; the jack pine on still poorer land. Jack pine will grow on sand.

The CHAIRMAN. Would you plant much spruce?

General ANDREWS. I would not say I would plant much. I would plant it in the soil better adapted for spruce, and occasionally some hard wood, too. We might have some acres that would be good for oak. Of course, in buying up considerable land, there might be 10 acres here and there that could not be availed of for a farm but would be good for oak or other hard-wood timber.

The CHAIRMAN. There is a good deal of agitation in the country in favor of having the General Government purchase a large acreage of lands in the White Mountains and also in the Southern Appalachian country as forest reservations. Do you think it would be practicable for the General Government to purchase any of this forest land up in this country and devote it to the reproduction of forests?

General ANDREWS. I think it would be practicable. I would prefer, however, that the State should do it. The United States now has 167,000,000 acres of national forest. Assuming that only half of it will be productive forest, that is an immense amount. That will make the United States take the lead of the world in forestry, if we except Russia.

The CHAIRMAN. Most of these reservations are pretty well in the West, or in a country that is not so close to the more thickly settled portions of the country, and the freight is a considerable item, I suppose. Of course, we would prefer to have Minnesota do it, but I am wondering whether Minnesota will do that to the extent that the land here would justify.

General ANDREWS. I intend to bring that matter before the next legislature. I have the indorsement of Mr. James J. Hill, the president of the University, and some twenty or thirty of our leading citizens of Minnesota in favor of the project that I shall recommend, and that is that a constitutional amendment be adopted providing for an annual tax of three-tenths of a mill on every dollar of taxable property, equivalent to 30 cents on a thousand dollars, and which would raise \$300,000 a year in a few years, and allowing the forestry board to buy land with that money and plant it to forest. I am going to ask the legislature to pass that at the next session.

The CHAIRMAN. Suppose the General Government could be induced, in its effort to reproduce the forest, to pay a small bounty, either to the State or to the private owner who would devote land to forestry. Would that be an inducement?

General ANDREWS. It would be an inducement, undoubtedly. The State of Minnesota has, ever since 1876, paid in bounty \$20,000 annually for tree planting on the prairies. That has led to considerable planting in the prairie parts of the State. Trees are not very valuable there, a good many of them cottonwood and boxelder, but still that has led to a good deal of planting, and I think that law has existed long enough.

The CHAIRMAN. That is like the Government timber act. It was a mistake at all times, a good deal like trying to grow trees on the sea.

Instead of selecting the place where they could grow, take the place where they will do the poorest and try to raise forest on land which is better adapted to something else and least adapted to forest raising.

General ANDREWS. Yes.

The CHAIRMAN. Of course, the reproduction of forest is outside of the question of statesmanship, a mere matter of profit in the opinion of people who engage in it. At present no one apparently in this portion of the country believes it to be profitable to do that as a private affair.

General ANDREWS. Too long to wait.

The CHAIRMAN. If the State engages in it or the General Government offers any inducement or engages in it it is a matter that the common public gets the benefit of and pays the expense of. Is there any practicable method of increasing the fire protection that you can suggest to us, not merely in Minnesota but as a general proposition?

General ANDREWS. I think it could be improved a great deal by finding men of energy and good conscience who will perform the duties of fire wardens.

The CHAIRMAN. For pay?

General ANDREWS. Yes, sir; reasonable pay.

The CHAIRMAN. We are told, for instance, that people here in lumbering can not afford to cut out the matured timber and leave the immature timber standing, because if they do that it is burned before they cut it, but that if they had sufficient fire protection they probably would leave those trees to grow larger. Might that not be the effect of better fire protection?

General ANDREWS. If there was better fire protection it would be an inducement, of course, to leave the trees to grow. New York seems better equipped a great deal than Minnesota in regard to fire protection. They have got a corps of officials there, and yet New York has had fires this past season.

The CHAIRMAN. How do they handle it up in Maine; do you remember?

General ANDREWS. They have the town officers act as wardens. They appropriate there \$20,000 a year for fighting fire. They have a forest commissioner who is land commissioner—a good deal the same as it is here.

Mr. RYAN. What is your annual appropriation here for fire protection?

General ANDREWS. It is \$5,000 for this office and the ordinary expense of administering the office and the pay of wardens, and in an ordinary season the counties pay back what is paid for the local expenses, what is paid wardens for fighting fire and people assisting them. Every person is obliged to turn out and fight fire at \$1.50 a day, which I believe is not enough. The warden is paid \$2 a day. Then in an extraordinary season, such as has just passed, we have \$5,000 as an emergency fund. That is all.

Mr. RYAN. What territory does a fire warden ordinarily cover?

General ANDREWS. In the country that you have been through it covers 22,000,000 acres.

Mr. RYAN. I mean one warden's territory.

General ANDREWS. A warden is for his town, the three supervisors in the township, which is 6 miles square. Sometimes a town contains

four Congressional townships and these three supervisors have four townships to look after. The district is a township, three men to the township.

Mr. RYAN. Through a cut-over territory that is away from a town, away out on the range somewhere, it is not very apt to have any protection at all, because that man does not get there?

General ANDREWS. It is liable not to have protection. There are some unorganized towns in which there is scarcely anybody living, and there is nobody suitable to appoint for a fire warden.

Mr. RYAN. That is just where the timber is.

General ANDREWS. That is just where there is danger. We ought to have a man who is paid enough to go out into that country and watch it.

Mr. RYAN. The fire wardens practically only protect the part that has been opened up to settlement from the fire encroaching on them from the adjacent forest?

General ANDREWS. Yes.

Mr. RYAN. It is more for their protection than for the protection of the forest?

The CHAIRMAN. How about the railroads? Do they set a large share of the fires and do they take care of them?

General ANDREWS. They set a great many fires. The law requires them to have efficient spark arresters, which seems impossible. They frequently set fires. It provides that they shall keep their right of way 50 feet on each side of the main track clear of combustible material, and that if a fire occurs near the line of the road they shall put it out—they shall adopt means to do it.

Mr. RYAN. Whose duty is it to enforce the law?

General ANDREWS. It is the duty of the forestry commissioner. It is my duty. It is the duty of the local officers. The law says they shall enforce it.

The CHAIRMAN. There is no way of enforcing the law, is there?

General ANDREWS. When we can get evidence that a person has set a fire we have him arrested and punished. I have had two men convicted, and one was sentenced to pay \$50 fine, and the other \$40. They have appealed to the district court. They gave bonds and appealed to the district court, and the district court will have a jury trial.

The CHAIRMAN. By that time the fire will be out.

General ANDREWS. It will be forgotten. We shall improve the law in another respect. We will have it so the fine shall not be less than \$50. But they can appeal, of course.

The CHAIRMAN. Are these copies of the report that you made to the Bureau of Corporations?

General ANDREWS. That is a copy of the report that I sent to the Department of Commerce and Labor.

The CHAIRMAN. Have you copies of these for us?

General ANDREWS. Yes; I will furnish you a copy.

The CHAIRMAN. We will print it and send you printed copies.

General ANDREWS. Very well.

The report is as follows:

Rough estimate by Gen. C. C. Andrews, forestry commissioner of Minnesota, August, 1908, of the total amount of merchantable standing timber, board measure, and cords of standing wood for fuel.

[This estimate is regarded as conservative and made principally from personal knowledge. It is on the basis that "pine lands" yield on an average 250,000 feet, board measure, per 40-acre tract; and that mixed or other forest only suitable for fuel yields 20 cords per acre.]

AITKEN COUNTY.

It is estimated that each full township in this and the following 20 counties contains on an average 1,500 acres, yielding 20 cords of wood each, exclusive of merchantable timber. Twenty-one counties are assumed to contain in the aggregate 1,000 townships of land.

Ash -----	2,304,000	Pine—Continued.	
Balsam -----	7,000,000	Norway -----	5,000,000
Basswood -----	7,680,000	White -----	3,000,000
Birch, white and yellow --	3,072,000	Poplar -----	40,000,000
Cedar -----	10,000,000	Spruce -----	38,400,000
Elm -----	1,536,000	Tamarack -----	19,000,000
Maple -----	2,688,000		
Oak -----	400,000	Total -----	138,074,000
Pine:			
Jack -----	8,000,000		

BECKER COUNTY.

Ash -----	960,000	Pine—Continued.	
Balsam -----	3,000,000	Norway -----	5,000,000
Basswood -----	3,200,000	White -----	8,000,000
Birch, white and yellow --	1,280,000	Poplar -----	30,000,000
Elm -----	640,000	Spruce -----	16,000,000
Maple -----	1,120,000	Tamarack -----	8,000,000
Oak -----	1,500,000		
Pine:		Total -----	84,700,000
Jack -----	5,000,000		

BELTRAMI COUNTY.

Ash -----	24,000,000	Pine:	
Balm of Gilead -----	200,000,000	Jack -----	325,000,000
Balsam -----	300,000,000	Norway -----	300,000,000
Basswood -----	80,000,000	White -----	225,000,000
Birch, white and yellow --	32,000,000	Poplar -----	300,000,000
Cedar -----	140,000,000	Spruce -----	400,000,000
Elm -----	16,000,000	Tamarack -----	750,000,000
Maple -----	28,000,000		
Oak -----	2,200,000	Total -----	3,122,200,000

CARLTON COUNTY.

Ash -----	1,152,000	Pine—Continued.	
Balsam -----	4,000,000	Norway -----	8,000,000
Basswood -----	3,860,000	White -----	7,000,000
Birch, white and yellow --	1,536,000	Poplar -----	35,000,000
Elm -----	768,000	Spruce -----	19,200,000
Maple -----	1,344,000	Tamarack -----	9,000,000
Oak -----	550,000		
Pine:		Total -----	97,410,000
Jack -----	6,000,000		

CASS COUNTY.

Ash	3,360,000	Pine—Continued.	
Balsam	11,000,000	Norway	180,000,000
Basswood	11,200,000	White	175,000,000
Birch, white and yellow ..	4,480,000	Poplar	112,000,000
Cedar	15,000,000	Spruce	56,000,000
Elm	2,000,000	Tamarack	28,000,000
Maple	3,920,000		
Oak	1,200,000	Total	308,160,000
Pine:			
Jack	205,000,000		

CLEARWATER COUNTY.

Ash	1,200,000	Pine—Continued.	
Basswood	3,200,000	Norway	25,000,000
Birch, white and yellow ..	1,280,000	White	30,000,000
Cedar	3,000,000	Poplar	10,000,000
Elm	640,000	Spruce	16,000,000
Maple	2,120,000	Tamarack	4,000,000
Oak	575,000		
Pine:		Total	118,015,000
Jack	20,000,000		

COOK COUNTY.

Ash	9,600,000	Pine:	
Balm of Gilead	45,000,000	Jack	350,000,000
Balsam	32,000,000	Norway	300,000,000
Basswood	32,000,000	White	275,000,000
Birch, white and yellow ..	12,800,000	Poplar	320,000,000
Cedar	53,000,000	Spruce	160,000,000
Elm	6,000,000	Tamarack	80,000,000
Maple	11,200,000		
Oak	48,000,000	Total	1,724,600,000

CROW WING COUNTY.

Ash	304,000	Pine—Continued.	
Balsam	2,000,000	Norway	1,500,000
Basswood	2,800,000	White	800,000
Birch, white and yellow ..	1,120,000	Poplar	17,000,000
Elm	608,000	Spruce	14,000,000
Maple	930,000	Tamarack	200,000
Oak	360,000		
Pine:		Total	44,422,000
Jack	2,850,000		

HUBBARD COUNTY.

Ash	1,750,000	Pine—Continued.	
Balsam	800,000	Norway	50,000,000
Basswood	800,000	White	45,000,000
Birch, white and yellow ..	320,000	Poplar	8,000,000
Elm	160,000	Spruce	4,000,000
Maple	380,000	Tamarack	2,000,000
Oak	1,450,000		
Pine:		Total	174,660,000
Jack	60,000,000		

ITASCA COUNTY.

Ash -----	16, 080, 000	Pine:	
Balm of Gilead -----	75, 000, 000	Jack -----	265, 000, 000
Balsam -----	52, 000, 000	Norway -----	300, 000, 000
Basswood -----	53, 600, 000	White -----	210, 000, 000
Birch, white and yellow -----	21, 440, 000	Poplar -----	538, 000, 000
Cedar -----	80, 000, 000	Spruce -----	283, 000, 000
Elm -----	10, 620, 000	Tamarack -----	134, 000, 000
Maple -----	18, 760, 000		
Oak -----	1, 804, 000	Total -----	2, 042, 304, 000

KANABEC COUNTY.

Basswood -----	350, 000	Pine—Continued.	
Birch, white and yellow -----	350, 000	White -----	2, 000, 000
Elm -----	320, 000	Poplar -----	6, 000, 000
Maple -----	650, 000	Spruce -----	1, 200, 000
Oak -----	1, 300, 000	Tamarack -----	1, 000, 000
Pine:			
Jack -----	2, 000, 000	Total -----	15, 670, 000
Norway -----	500, 000		

KOOCHICHING COUNTY.

Ash -----	21, 120, 000	Pine:	
Balm of Gilead -----	704, 000, 000	Jack -----	425, 000, 000
Balsam -----	70, 000, 000	Norway -----	275, 000, 000
Basswood -----	70, 400, 000	White -----	325, 000, 000
Birch, white and yellow -----	28, 180, 000	Poplar -----	700, 000, 000
Cedar -----	125, 000, 000	Spruce -----	352, 000, 000
Elm -----	14, 280, 000	Tamarack -----	176, 000, 000
Maple -----	24, 640, 000		
Oak -----	2, 058, 000	Total -----	3, 312, 656, 000

LAKE COUNTY.

Ash -----	14, 400, 000	Pine:	
Balm of Gilead -----	65, 000, 000	Jack -----	320, 000, 000
Balsam -----	48, 000, 000	Norway -----	450, 000, 000
Basswood -----	84, 000, 000	White -----	350, 000, 000
Birch, white and yellow -----	18, 200, 000	Poplar -----	480, 000, 000
Cedar -----	80, 000, 000	Spruce -----	240, 000, 000
Elm -----	9, 600, 000	Tamarack -----	120, 000, 000
Maple -----	16, 800, 000		
Oak -----	7, 200, 000	Total -----	2, 303, 200, 000

MILLELACS COUNTY.

Ash -----	550, 000	Pine—Continued.	
Basswood -----	450, 000	Norway -----	1, 750, 000
Elm -----	450, 000	White -----	2, 500, 000
Maple -----	780, 000	Poplar -----	12, 000, 000
Oak -----	1, 200, 000		
Pine:		Total -----	20, 280, 000
Jack -----	600, 000		

MORRISON COUNTY.

Ash -----	400, 000	Pine—Continued.	
Basswood -----	400, 000	Norway -----	2, 000, 000
Birch, white and yellow -----	160, 000	White -----	1, 500, 000
Elm -----	150, 000	Poplar -----	4, 000, 000
Maple -----	240, 000	Spruce -----	2, 000, 000
Oak -----	650, 000	Tamarack -----	1, 000, 000
Pine:			
Jack -----	3, 000, 000	Total -----	15, 500, 000

OTTERTAIL COUNTY.

Ash	1, 600, 000	Poplar.....	6, 000, 000
Basswood.....	600, 000	Spruce.....	3, 000, 000
Birch, white and yellow.....	300, 000	Tamarack	1, 500, 000
Elm	220, 000		
Maple	600, 000	Total.....	15, 520, 000
Oak	1, 700, 000		

PINE COUNTY.

Ash	2, 912, 000	Pine—Continued.	
Balsam	3, 000, 000	Norway	8, 000, 000
Basswood	3, 040, 000	White	6, 000, 000
Birch, white and yellow.....	1, 200, 000	Poplar	50, 000, 000
Elm	1, 064, 000	Spruce	15, 200, 000
Oak	1, 250, 000	Tamarack	7, 500, 000
Pine:			
Jack	17, 000, 000	Total	116, 166, 000

ROSEAU COUNTY.

Ash	500, 000	Pine:	
Balsam	1, 000, 000	Jack	5, 000, 000
Basswood	1, 000, 000	Norway	2, 000, 000
Birch, white and yellow.....	410, 000	Poplar	10, 000, 000
Cedar	5, 000, 000	Spruce	5, 000, 000
Elm	200, 000	Tamarack	2, 500, 000
Maple	650, 000		
Oak	700, 000	Total	33, 960, 000

ST. LOUIS COUNTY.

Ash	40, 800, 000	Pine:	
Balm of Gilead.....	100, 000, 000	Jack	1, 100, 000, 000
Balsam	136, 000, 000	Norway	1, 200, 000, 000
Basswood	136, 000, 000	White	1, 350, 000, 000
Birch, white and yellow.....	54, 400, 000	Poplar	1, 360, 000, 000
Cedar	123, 000, 000	Spruce	680, 000, 000
Elm	27, 200, 000	Tamarack	340, 000, 000
Maple	47, 600, 000		
Oak	20, 400, 000	Total.....	6, 715, 400, 000

TODD COUNTY.

Ash	800, 000	Pine—Continued.	
Basswood	300, 000	Norway	3, 000, 000
Birch, white and yellow.....	275, 000	White	2, 500, 000
Elm	300, 000	Poplar	3, 000, 000
Maple	305, 000	Spruce	1, 500, 000
Oak	1, 600, 000	Tamarack	750, 000
Pine:			
Jack	2, 400, 000	Total	16, 730, 000

WADENA COUNTY.

Ash	650, 000	Pine—Continued.	
Balsam	500, 000	Norway	10, 000, 000
Basswood	500, 000	White	8, 000, 000
Birch, white and yellow.....	200, 000	Poplar	5, 000, 000
Elm	175, 000	Spruce	2, 500, 000
Maple	200, 000	Tamarack	1, 000, 000
Oak	550, 000		
Pine:		Total.....	49, 275, 000
Jack	20, 000, 000		

General ANDREWS. We have 20,000,000 acres of land to look after, and this office is provided with a commissioner and a stenographer. We have not got a clerk. We ought to have a chief clerk and an assistant and two stenographers.

The CHAIRMAN. We are apparently just waking up to the necessity of taking care of our forests, and we will see if we can help you get more help and more money.

General ANDREWS. I wish you would, indeed:

The CHAIRMAN. There is no doubt that you need it. Is there any other State east of the Rocky Mountains now that has as much forest as Minnesota?

General ANDREWS. I think not.

The CHAIRMAN. Of course, it is quite true, I suppose, that land that is valuable for grazing or agricultural purposes will never be used for forest reproduction to any extent?

General ANDREWS. If every farmer had 10 acres that would be just as well to devote to forest as to cultivation that would make quite an amount.

The CHAIRMAN. I am not referring to the farm timber lot, but, on a larger scale, a country that is suitable for grazing or farming is not likely to be used by the State or the individual for forest reproduction, I take it.

General ANDREWS. No.

The CHAIRMAN. As to Minnesota, that brings in the question as to what land can be used for farming and what the effect of drainage will be upon the muskeg and the lakes. You are the headwaters of the Mississippi, and the effort of the Government at present is not only toward conservation of forest but toward the conservation of the water resources. Taking that into consideration, the effect of drainage on the lakes of northern Minnesota, what, in your judgment, is likely to be the future of that part of the State—devoted to farming or to forest raising?

General ANDREWS. I would think it would be devoted to a considerable extent to farming, the same as New Hampshire and Maine. The land that is good for stock raising, for grass, to be used for dairy farms. There is considerable land in northern Minnesota that would be good for dairy farms that would not produce wheat, and considering the abundance of water, which is important in stock raising, and the great number of good, natural meadows, I would say that there would be considerable farming, and yet that we could have probably from three to six million acres for forest.

The CHAIRMAN. If you drain off the muskeg, will that have a tendency or not to drain the lakes?

General ANDREWS. I do not believe I am engineer enough to say.

The CHAIRMAN. I did not know but what you were familiar with the surveys they have made. Of course, that would depend wholly upon the matter of surveys.

General ANDREWS. I do not know but it might help replenish the lakes to drain the muskeg. We have now a system of reservoirs in northern Minnesota and they are increasing. We are making dams at places that would not have been thought of thirty years ago.

The CHAIRMAN. In connection with those reservoirs, is there part of that land that could be used for forestry purposes, or not, better than for grazing purposes?

General ANDREWS. The land that is being drained?

The CHAIRMAN. The land where you are damming up the water adjacent to it.

General ANDREWS. That would not increase the amount of forests that I know of.

The CHAIRMAN. No; but it overflows more or less land.

General ANDREWS. Yes; kills some timber, too.

The CHAIRMAN. But there is always more or less land adjacent to that?

General ANDREWS. Yes.

The CHAIRMAN. Is that more valuable than for grazing or reforestation?

General ANDREWS. It would depend upon the nature of the soil. Loamy soil where there is granite is good for grass if it is not too stony.

The CHAIRMAN. We have seen a good deal of forest where you can see nothing but large rocks under trees that have been blown over, with a little humus on top. Of course, that land is worthless for anything except for forest.

General ANDREWS. Yes.

The CHAIRMAN. We have asked a good many gentlemen in reference to the character of the muskeg, and have been told that under a good deal of the muskeg they believed there was only rock and no soil below the peat. Whether that peat can be made into good farming land itself would depend. I suppose, upon its depth and what fertilizers were added to it, but there may be a considerable portion of that that is only good for reforestation.

General ANDREWS. Yes.

The CHAIRMAN. If you have a number of million acres of land that are better fitted for reforestation than for any other purpose, 30 000 acres a year, which is a good many, would still seem very small. Would you not require a very great popular feeling in the State on the subject of national help to get that reforested within a reasonable period of time?

General ANDREWS. Of course, we need a strong popular sentiment. In the proposition that I refer to we can submit to popular vote to be adopted as a constitutional amendment. It will certainly help agitate the subject if it does not carry. In eighty years, if we should buy and plant thirty-six or thirty-seven thousand acres a year, we would have 3,000,000 of forest, from which we could cut 675,000,000 feet annually. Of course, we would have to reforest some, but we could cut over what we plant this year in eighty years.

The CHAIRMAN. If you would plant enough this year to let it grow until it reached maturity, you would get still more benefit from it?

General ANDREWS. To have a normal forest you must have some matured trees to cut every year. It would be better to have it in one locality. What you plant this year in eighty years you can cut.

The CHAIRMAN. What you plant this year, of course, you could thin out a number of times.

General ANDREWS. I do not think so, because a forest that is planted on forestry principles, trees about 4 feet apart, they grow up thick and close and they shed the limbs themselves. The shade kills the limbs just as has been done in our forest here in Minnesota. I

have a picture here which illustrates that idea. It shows how trees will grow on land that can not be used for agriculture.

The CHAIRMAN. Of course, they will be more than 4 feet apart when they reach maturity.

General ANDREWS. Oh, yes.

The CHAIRMAN. The spruce might easily be thinned out.

General ANDREWS. Yes; they could with profit use the trees for Christmas trees when they are fifteen years old. A man could make money raising Christmas trees if he wanted to. Some people object to cutting trees for Christmas trees. I think that is good forestry because forestry means getting a revenue from forestry land.

The CHAIRMAN. You do not object to cutting Christmas trees?

General ANDREWS. Not at all. That is genuine forestry. If you can get anything from your land by raising a crop of trees and selling them when they are fifteen years old, it is much better than to wait eighty years. I object, however, to people stealing Christmas trees.

The CHAIRMAN. You hand me certain blanks. These are all blanks in connection with fire protection and notices that you send out in connection with fire protection?

General ANDREWS. Yes, sir.

The CHAIRMAN. They may be inserted in the record for information.

STATE OF MINNESOTA.

FIRE WARDEN'S REPORT OF FIRE.

To the Forestry Commissioner, St. Paul, Minn.:

A [state whether forest, prairie, or field fire] ----- fire occurred in the [state what part of town] ----- part of the town of -----, being township No. -----, range -----, in the county of -----, on the ----- day of ----- [state about what time of day] ----- It burnt over ----- acres of [state kind of land, whether field, prairie, brush, meadow, heavy or light timber] -----, destroyed -----, and did damage to the amount of \$----- Said fire originated on section No. -----, being land occupied by ----- [if vacant so state] ----- and was caused by [explain how it originated. It is the chairman's duty "to inquire into the cause" of the fire. He should report the facts and circumstances showing who caused the fire] -----

The fire was extinguished in ----- hours after it started. There were ----- persons called to help extinguish it. [If none were called, so state.] The number of persons assisting in extinguishing the fire was ----- The fire was extinguished in the following manner ----- The weather was [state whether dry and windy and how long it had been dry] ----- [Give the name of any fire warden who was present and assisted in controlling or extinguishing the fire, and the name and address of any witness as to who set the fire and state what he will swear to.]

P. O. -----

Signature -----

Date -----

Name of organized township -----

POST-OFFICE ADDRESS OF FIRE WARDENS.

[NOTE.—Be careful in writing names to have each letter distinct and plain.]

To the Chief Fire Warden, St. Paul:

SIR: The undersigned is chairman of supervisors of the town of -----, in the county of ----- His residence is on section -----, township -----, range -----, and his post-office is -----

The names, residence, and post-office of the other two supervisors are as follows:

Mr. ----- resides on section ----- (if you do not know the section he resides on state near what section), township -----, range -----, and his post-

office is ----- Mr. ----- resides on (near) section -----, township -----, range -----, and his post-office is -----.

Names and post-office address of the justices of the peace in above-named town:

Names -----

Post-office -----

P. O. -----

Date -----

Signature -----

Name of organized township -----

FOREST FIRE LAW OF MINNESOTA.

[Circular No. 26.]

STATE OF MINNESOTA,
OFFICE OF FORESTRY COMMISSIONER,
St. Paul, Minn., March 26, 1906.

Chapter 22 and additional quoted sections of "Revised Laws, Minnesota, 1905," for the prevention and extinguishment of forest and prairie fires are herewith published for the information and guidance of all persons concerned.

1781. The state auditor shall appoint a forestry commissioner, to hold office during his pleasure, whose salary shall be fifteen hundred dollars per annum, payable monthly out of the appropriations for forest preservation. He shall be a member of the forestry board, have immediate supervision of the several firewardens, disseminate information concerning forestry, and enforce the laws relating thereto, and to the prevention of forest and prairie fires.

1782. The supervisors of towns, mayors of cities, and presidents of village councils are hereby constituted firewardens for their respective districts. Upon request of the commissioner, county auditors shall immediately furnish the names and addresses of the chairmen of town boards, the names of towns, and the numbers and ranges of the townships in each. The commissioner may appoint firewardens for unorganized territory, and additional wardens, temporarily, wherever he may deem it necessary; and he may direct any warden to perform duties at a point outside of his district. The wardens shall enforce the provisions of this chapter. They shall patrol their districts in dry seasons, and, with the approval of the commissioner, may employ patrols to guard against carelessness in use of fire. They shall promptly investigate each prairie and forest fire within their respective districts, and report the cause thereof, the property destroyed and its value, the lives lost, if any, the means used to combat such fire, and any additional facts required by the commissioner. They shall make such other reports as he may require, and comply promptly with his instructions. Each warden shall cooperate with the warden in any adjoining district, and, in his absence, assume control therein. Each may arrest, without a warrant, any person found violating any provision of this chapter, and take him before a magistrate, and there make complaint; and, when a warden shall have information that such violation has been committed, he shall make similar complaint. Wardens shall go to the place of danger to control or prevent fires, and in emergencies may employ or compel assistance. Each warden shall receive for actual service two dollars per day, and each employee or patrol one dollar and fifty cents per day. Unless directed by the commissioner, no warden shall be paid for more than fifteen and no employee for more than ten days in any one year; but a warden shall receive compensation for use of a team when plowing for the control of a fire.

1783. The commissioner shall investigate the State forests, and the causes and effects of fire therein; the quantity and character of the timber, and methods used to promote its regrowth, and other facts relating to forest interests. He shall report to the auditor annually touching his official acts, making such recommendations as he shall deem proper. He shall cooperate with any force of the United States which may be detailed to protect property from fire. He shall prepare an abstract of the penal laws relating to forest and prairie fires, together with proper regulations and suggestions for the prevention and control thereof, and before April 1 in each year shall forward printed copies to all firewardens, railroad companies, and chairmen of county boards. The wardens shall post such abstract in numerous conspicuous places in their respective districts, and the commissioner may require any county board to cause at least three weeks' published notice thereof to be given.

1784. In any season of unusual drought, the commissioner may use such means as he shall deem necessary to prevent or suppress forest and prairie

fires, the cost whereof, not exceeding five thousand dollars in any one year, shall be paid by the State. And whenever the local officials shall neglect to prosecute violators of any law relating to forest or prairie fires, the commissioner shall prosecute the same, and the cost of such prosecutions, not exceeding one thousand dollars in any year, shall be paid by the State. County attorneys shall assist therein. Six thousand dollars, or so much thereof as may be necessary, are hereby appropriated annually for the purposes of this section.

1745. Each firewarden shall be paid for actual service at the rate of two (\$2) dollars per day, and each employee or patrol at the rate of one and fifty one-hundredths (\$1.50) dollars per day. Unless directed by the commissioner no firewarden shall be paid for more than fifteen (15) and no employee for more than ten (10) days in any one year; but a firewarden shall receive compensation for use of team when plowing for the control of a fire. The compensation authorized by this section shall be paid out of the state treasury on duly verified vouchers approved by the commissioner; and one-half ($\frac{1}{2}$) the amount shall be reimbursed to the State by the county in which the expense occurred. The state auditor shall notify the proper county auditor of the one-half ($\frac{1}{2}$) amount that has become due from his county under the foregoing provisions and such county auditor shall immediately draw and transmit to the state auditor a warrant on the county treasurer of his county in favor of the State for such amount.

1786. Every person operating a thrashing or other portable engine shall keep effective spark arresters thereon while in use, and no person shall deposit coals or ashes therefrom without safely covering or extinguishing the same. Every violation of any provision of this section shall be deemed a misdemeanor.

1787. Every warden or patrol, and every person lawfully commanded to assist in enforcing any of the provisions of this chapter, who shall unjustifiably refuse or neglect to perform his duty; every person who shall kindle a fire on or near to forest or prairie land and leave it unquenched, or be a party thereto; every person who shall use other than incombustible wads for firearms, or carry a naked torch, firebrand, or exposed light in or near to forest land; and every person who shall deface, destroy, or remove any abstract posted under this chapter, shall be guilty of a misdemeanor. Any person who maliciously sets on fire, or causes to be set on fire, any woods, prairie, or other combustible material, whereby the property of another is destroyed and lives are sacrificed, shall be punished with a fine of not over \$500 or be imprisoned in the State prison for a term not exceeding ten years, or both such fine and imprisonment.

4907. Every person who shall negligently or carelessly set on fire, or cause to be set on fire, any woods, prairie, or other combustible material, whether on his own land or not, by means whereof the property of another shall be endangered, or who shall negligently suffer any fire upon his own lands to extend beyond the limits thereof, shall be guilty of a misdemeanor.

4843. Every public officer, or person holding a public trust or employment, who shall willfully neglect or omit to perform any duty enjoined upon him by law, in case no punishment is specially provided therefor, shall be guilty of a gross misdemeanor.

4763. Whoever is convicted of a misdemeanor for which no punishment is prescribed by any statute in force at the time of conviction and sentence shall be punished by imprisonment in the county jail for not more than three months, or by a fine of not more than \$100.

4764. Whoever shall be convicted of a gross misdemeanor for which no punishment is prescribed by any statute in force at the time of conviction and sentence shall be punished by imprisonment in the county jail for not more than one year, or by a fine of not more than \$1,000.

2037. Every company operating a railroad shall use upon each locomotive engine a good and efficient spark arrester, and shall keep the ground for 50 feet on each side of the center of the main track clear of combustible materials, except ties and other material necessary for the maintenance and operation of the road, from April 15 to December 1. No company shall permit any of its employees to leave a deposit of fire, live coals, or ashes in the immediate vicinity of woodland or lands liable to be overrun by fire, and every engineer, conductor, or trainman discovering fire adjacent to the track shall report the same promptly at the first telegraph station reached by him. In seasons of drought every such company shall give its employees particular instructions for the prevention and extinguishment of fires, and shall cause warning placards furnished by the forestry commissioner to be conspicuously posted at every station in the vicinity of forests and grass lands, and, when a fire occurs

near the line of its road, shall concentrate such help and adopt such measures as shall be available for its extinguishment. Any company violating any provision of this section shall forfeit to the State not more than \$100 for each offense, and any railroad employee violating the same shall be guilty of a misdemeanor, and shall be punished by a fine of not less than \$5 nor more than \$50.

1788. All fines collected for violations of this chapter shall be paid into the treasury of the county in which the conviction occurs and become a separate fund for defraying the cost of enforcing the provisions hereof in such county.

5504. These laws * * * shall take effect March 1, 1906, but shall not be construed as abrogating any act passed at the session of 1905, all of which, so far as they differ from the revised laws, shall be construed as amendatory thereof or supplementary thereto.

Firewardens will preserve this and other printed instructions which they may receive and turn the same over to their successors. Every chairman of town board receiving three copies of this circular will furnish one to each of the other two members of the board.

C. C. ANDREWS,
Forestry Commissioner.

DUTIES OF FIREWARDENS.

[Circular No. 31.]

STATE OF MINNESOTA.
OFFICE OF FORESTRY COMMISSIONER,
St. Paul, Minn., April 11, 1908.

By section 1782, revised laws, Minnesota, 1905, supervisors of towns, mayors of cities, presidents of village councils are firewardens. They shall go to the place of danger to prevent fires and to control fires. They shall in emergencies compel assistance.

No one can tell when a season like that preceding the Hinckley calamity, September 1, 1894, may occur, and too much care can not be observed in regard to fires in dangerous localities in seasons of drought. A small fire, if left to smoulder and burn, might in a very dry period, with a sudden and terrific gale of wind, cause a great calamity. The only safe way in case of such fire is, if a warden in whose district it occurs can not entirely extinguish the fire, to summon assistance and make such a break around it that it can not spread. The law is explicit in making it the duty of a warden to "go to the place of danger" to control fires and to prevent fires. They shall promptly investigate and report fires and make complaint before a magistrate for violation of the law.

Wardens have other public duties, but none of their duties is more respectable than that of saving their districts from a catastrophe that is liable from forest and prairie fires. If such catastrophe should occur through their neglect it would be a lasting discredit to their memory. On the other hand, where their vigilance results in the preservation of life and property in their communities they deserve public gratitude.

The only safety is to insist that people shall be careful about fire. Wardens must be watchful, energetic, strict.

C. C. ANDREWS,
Forestry Commissioner.

General ANDREWS. I send these notices to each chairman of the board of supervisors of each township, and send 3,000 to the railroad companies.

STATE OF MINNESOTA,
OFFICE OF THE FORESTRY COMMISSIONER,
St. Paul, Minn., April 9, 1908.

By the law of Minnesota anyone who kindles a fire near forest or prairie land and leaves it unquenched is liable to a fine of not exceeding \$100 or imprisonment in jail not exceeding three months.

Town supervisors, village presidents, and mayors of cities are firewardens and required to enforce the law, go to place of danger to prevent and control fires, employ or compel assistance in emergencies, investigate and immediately report fires, and complain before a magistrate of violations of the law.

Railroad companies are required to use efficient spark arresters on their locomotive engines, keep their rights of way clear of combustible material (except ties), post warning placards conspicuously at every station in the vicinity of forests and grass lands, and extinguish any fire occurring near their roads, subject to forfeiture of not exceeding \$100 for each offense.

C. C. ANDREWS,
Forestry Commissioner.

The CHAIRMAN. You send out a blotter?

General ANDREWS. Yes.

The blotter contains the following printed matter:

Don't be afraid to caution people against causing fires.
Pile your brush before burning. You must not set fire and let it run wild.
Take pride in having your town free from fires.

"Why aren't those sand hills planted to fir?" [Frederick the Great, one hundred and fifty years ago.]

Leading principles of forestry: Forest should occupy only nonagricultural land; when young, should be crowded, to promote height growth; should be treated as a permanent revenue yielding capital; cutting should be done so as to promote natural regeneration on the cleared land.

General ANDREWS. They are furnished with return blanks and letter heads.

The CHAIRMAN. Here is a copy of the letter head of the forestry commissioner, which may be inserted in the record, with an extract from the President's message:

C. C. ANDREWS,
Forestry Commissioner.

STATE OF MINNESOTA,
OFFICE OF FORESTRY COMMISSIONER,
St. Paul, Minn., ———, 190—.

Public opinion has moved steadily toward a just appreciation of the value of forests. The fundamental idea of forestry is the perpetuation of forests by use. * * * The forest reserves should be set apart forever for the use and benefit of our people as a whole, and not sacrificed to the short-sighted greed of a few. All of the reserves should be better protected from fires.

The forests are natural reservoirs. By restraining the streams in flood and replenishing them in drought they make possible the use of waters otherwise wasted.

The preservation of our forests is an imperative business necessity. (President Roosevelt's first annual message.)

General ANDREWS. The annual report is in this style. The state publishes 4,000 copies and distributes them gratuitously. There are illustrations in it.

The CHAIRMAN. You state you publish 4,000 copies of this annual report?

General ANDREWS. Yes, sir.

The CHAIRMAN. This is the thirteenth annual report of the forestry commission?

General ANDREWS. Yes. You might take this, because that contains some estimates made thirteen years ago of timber in this State. (Referring to second annual report of the chief firewarden for the year 1896.)

The CHAIRMAN. How many reports of fires have you had this year?

General ANDREWS. I should say that there must be 350 reports. I have not compiled them yet. The damage from fire in this State is very much less than the newspaper accounts give. Except Chisholm, I do not suppose the damage is \$300,000.

The CHAIRMAN. You have had much less fire in this State than they have had in Wisconsin.

General ANDREWS. Yes; that is, just timber.

State forestry in European countries.

[Compiled from Thirteenth Annual Report of the Forestry Commissioner of Minnesota, 1907.]

Country.	Year of report.	Acreage.	Prevailing varieties of trees.	Annual expense.	Annual net revenue.	Annual net revenue per acre.	Acres reforested annually (average).	Average annual damages by fire.
Alsace-Lorraine		884,175	Beech, oak, pine, fir, spruce.	\$1,480,000	\$858,000	\$2.40	3,940	
Austria	1895	2,573,940	Spruce, 49 per cent; beech, 20 cent.	1,803,755	698,741	.26	15,614	\$32,781
Duchy of Baden		248,000	Spruce.					
Bavaria	1891, 1894	2,150,000	Red, white pine, beech.	4,965,204	3,222,145	1.50	14,800	1,686
Bulgaria	1905	2,231,000	Scotch pine, fir, spruce.	150,000				
Denmark	1893-1900	142,140	Beech, pine, spruce.	195,370	63,046	.44	2,285	
France		2,800,000	Oak, pine, fir, spruce, Norway	2,725,000	3,275,000	1.17		
Grand Duchy of Hesse	1903	177,880	Broad-leaved, 60 per cent; conifers, 40 per cent.	534,153	364,191	2.05	2,700	1,500
Italy		128,960	Oak, beech, pine, larch, fir.	80,000	70,000	.54	150	
Norway	1904-5	2,265,657	Coniferous, birch.	174,243	120,121	.05	7,556	
Prussia	1893-1897	6,956,227	Scotch pine, larch, beech, red pine, fir, oak, birch.	8,500,000	8,700,000	1.25	44,830	
Russia	1904-5	633,143,918	Pine, fir, oak, birch.	5,570,773	19,079,506	.03	21,241	84,930
Duchy of Sax-Meningen	1905	106,530	Silver fir, Norway spruce, Scotch pine.					
Saxony	1903	442,000	Spruce, Scotch pine, fir, larch.	1,270,800	2,067,700	4.68	6,500	300
Grand Duchy of Saxe-Weimar		110,910						
Sweden	1895	18,080,753	Spruce, pine, birch.	185,397	941,239	.05	10,875	10,000
Switzerland	1903-4	96,497	Norway spruce, silver fir, larch, Scotch pine.	112,600			503	
Wurtemberg	1895-96	420,000	Norway spruce, beech, silver fir, Scotch pine.	1,183,574	1,744,788	3.63	6,478	500

Private forestry in European countries.

[Compiled from Thirteenth Annual Report of the Forestry Commissioner of Minnesota, 1907.]

Country.	Year of report.	Acreage.	Value per acre.	Revenue.	Managed on forestry principles.	Remarks.
Alsace-Lorraine		221,965	\$275	Per cent. 1 1/2 to 4	Per cent.	
Austria	1895	16,754,290	5 to 340	2 to 3	38.4	
Duchy of Baden					33	Product increasing.
Bavaria	1892	3,149,400	(*)	(*)	18	
Bulgaria	1905	1,283,500				
Denmark	1896	505,900			75 to 80	Since 1868 108,500 acres planted.
France		16,000,000		(b)	(c)	Area increasing.
Grand Duchy of Hesse	1903	199,185				
Prussia	1904-5	10,828,780	(b)		50	
Saxony	1900	620,000			(4)	Yield less than State.
Grand Duchy of Saxe-Weimar		120,510				
Sweden	1895	58,715,135	5		25	
Switzerland	1903-4	604,014				
Wurtemberg	1902	537,000			37	

* Varies widely.

* Less than State.

* Practice spreading.

* A considerable percentage.

PULP AND PAPER INVESTIGATION HEARINGS

HD 9821
A 6
1908

STATISTICS OF FOREIGN COUNTRIES

SELECT COMMITTEE OF HOUSE OF REPRESENTATIVES

JAMES R. MANN, Illinois, *Chairman*

JAMES M. MILLER, Kansas

HENRY T. BANNON, Ohio

WILLIAM H. STAFFORD, Wisconsin

THETUS W. SIMS, Tennessee

WILLIAM H. RYAN, New York

NO. 33

WASHINGTON

GOVERNMENT PRINTING OFFICE

1908



WOOD PULP, PRINT PAPER, ETC.

DEPARTMENT OF COMMERCE AND LABOR,
OFFICE OF THE SECRETARY,
Washington, July 23, 1908.

DEAR SIR: In compliance with a request received in a letter from the Secretary to the President, under date of the 17th instant, the Bureau of Statistics and the Census Bureau of this department have been instructed to furnish you as chairman of the select committee to investigate the price of wood pulp and print paper with all data on this subject that may be obtainable.

Yours, very truly,

WM. R. WHEELER,
Acting Secretary.

Hon. JAMES R. MANN,
1350 First National Bank Building, Chicago, Ill.

DEPARTMENT OF COMMERCE AND LABOR,
BUREAU OF STATISTICS,
Washington, July 24, 1908.

Hon. JAMES R. MANN, M. C.,
Chicago, Ill.

MY DEAR MR. MANN: In compliance with your request for information regarding the importation and exportation of pulp wood, wood pulp, and the various kinds of paper, submitted verbally just after the adjournment of Congress, I have prepared a series of tables showing, as far as practicable, the imports into and exports from the various countries in such detail as is shown in the official reports of the respective governments. The compilation of these tables and their transformation into our own units of quantity and value have necessitated much time and careful research on the part of several expert clerks, my desire having been to furnish as fully as possible the information asked for in your recent interview. All the available information on the subjects mentioned by you is contained in the tables.

As I was about to transmit the tables to you, I received a communication from the Secretary of this department under date of the 23d instant, inclosing a copy of House resolution No. 344 of the recent session of Congress, directing the appointment of a committee to investigate the price of wood pulp and print paper, in accordance with the President's instructions in a letter from his Secretary under date of the 17th instant. The letter directed me to furnish the committee with such data on that subject as may be in the possession of this bureau, and to compile for the committee such additional statistics of this character as may be obtainable.

As these tables comprise all of the data this bureau can furnish on the subject, and consist of seventy-four typewritten pages, I write to inquire whether it will be a compliance with the terms of the communication above referred to, to transmit the data to you as chairman of the committee at your home address in Chicago. In case this copy is desired for your own personal use, and another for the committee, I should know this fact before the papers leave my hands.

Very truly, yours,

O. P. AUSTIN,
Chief of Bureau.

1350 FIRST NATIONAL BANK BUILDING,
Chicago, July 27, 1908.

Mr. O. P. AUSTIN,
*Chief Bureau of Statistics,
Department Commerce and Labor, Washington, D. C.*

DEAR MR. AUSTIN: Referring to your letter of the 24th instant, relating to tables regarding imports, etc., pulp wood, wood pulp, etc., I beg to say that it will be a compliance with the terms of the communication from the Secretary of your department to transmit data you have collected to me as chairman of the committee at this address. I only desire the one copy, which I hope is in such shape that I can have it printed in the regular hearings of the committee.

Thanking you very much for your courtesy in the matter, I am,
Yours, very truly,

JAMES R. MANN, *Chairman.*

DEPARTMENT OF COMMERCE AND LABOR,
BUREAU OF STATISTICS,
Washington, July 29, 1908.

Hon. JAMES R. MANN,
*Chairman, Committee on Pulp and Paper Investigation,
1350 First National Bank Building, Chicago, Ill.*

SIR: I am in receipt of your favor of the 27th instant, stating that it will be a compliance with the terms of the communication of the Secretary of this department to transmit to you the data in regard to pulp wood, wood pulp, and print paper, imported into and exported from the various countries of the world, which have been collected by this bureau for you.

The data referred to are transmitted herewith, and it is hoped they will serve your purpose, as it would be impracticable to supplement the information with any additional data derived from the official returns of the various countries.

Very truly, yours,

J. N. WHITNEY,
Acting Chief of Bureau.

**STATEMENTS SHOWING TRADE IN WOOD PULP, CELLULOSE, AND
OTHER ARTICLES USED IN THE MANUFACTURE OF PAPER,
AND PAPER MANUFACTURES BY PRINCIPAL COUNTRIES
OF THE WORLD, EXCLUDING THE UNITED STATES,
FOR THE LATEST AVAILABLE YEARS FROM
OFFICIAL SOURCES.**

**[PREPARED BY THE BUREAU OF STATISTICS, DEPARTMENT OF
COMMERCE AND LABOR, JULY 20, 1908.]**

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Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, by principal countries of the world, excluding the United States, for the latest available years from official sources.

[Prepared by the Bureau of Statistics, Department of Commerce and Labor, July 20, 1908.]

AUSTRIA-HUNGARY.

IMPORTS (SPECIAL) FOR CALENDAR YEAR 1906.

Imported from—	Quantity.	Value.
Cellulose, chemically produced:		
Bleached—	<i>Pounds.</i>	
Germany.....	2,240,766	\$66,025
Sweden.....	97,002	2,858
United States.....	646,389	19,046
Total.....	2,984,147	87,929
Unbleached:		
Germany.....	272,709	5,775
United Kingdom.....	33,730	714
Sweden.....	88,404	1,872
United States.....	49,383	1,046
Total.....	444,226	9,407
Cellulose, mechanically produced:		
Germany.....	322,753	3,462
Sweden.....	22,928	248
Total.....	345,681	3,740
Cellulose mass (Holzstoffpappe):		
Trieste (free port).....	2,646	39
Germany.....	582,676	8,584
Switzerland.....	8,157	120
Total.....	593,479	8,743
Paper stock, of wood, straw, etc.:		
Mechanically produced, bleached—		
Germany.....	24,030	282
United States.....	115,982	1,361
Total.....	139,992	1,643
Mechanically produced, unbleached—		
Germany.....	329,808	3,568
Italy.....	14,771	180
Russia.....	23,148	251
United States.....	114,419	1,228
Total.....	482,146	5,217
Chemically produced, bleached and unbleached—		
Germany.....	1,021,612	32,925
Netherlands.....	22,707	732
Total.....	1,044,319	33,657
Wood for the manufacture of cellulose:		
Germany.....	1,087,088	2,708
Italy.....	130,512	324
Total.....	1,217,600	3,027
Paper, unsized, ordinary:		
Coarse gray, half white and colored, unsized printing paper—		
Germany.....	11,023	609
Switzerland.....	2,866	158
Italy.....	1,984	110
France.....	3,968	219
United Kingdom.....	12,787	706
Total.....	32,628	1,802

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc—Continued.

AUSTRIA-HUNGARY—Continued.

IMPORTS (SPECIAL) FOR CALENDAR YEAR 1906—Continued.

Imported from—	Quantity.	Value.
Printing paper, unsized, smooth:		
For books and newspapers—	<i>Pounds.</i>	
Germany.....	190,257	\$10,511
Switzerland.....	4,850	208
Italy.....	31,085	1,717
France.....	6,173	341
United Kingdom.....	15,212	840
Russia.....	1,543	85
China.....	661	37
Total.....	249,781	13,799

EXPORTS (SPECIAL), CALENDAR YEAR 1906.

Exported to—	Quantity.	Value.
All printing paper (unsized):	<i>Pounds.</i>	
Trieste, free port.....	509,704	\$14,787
Hamburg, free port.....	2,341,285	68,080
Bremen, free port.....	1,543	41
Germany.....	364,200	10,364
Switzerland.....	37,478	1,099
Italy.....	351,634	9,492
Netherlands.....	442,684	13,016
Denmark.....	37,478	1,100
France.....	20,062	591
Portugal.....	6,393	188
Belgium.....	320,549	9,445
United Kingdom.....	993,613	28,651
Sweden.....	9,259	273
Norway.....	26,014	767
Roumania.....	145,504	4,137
Bulgaria.....	2,618,624	76,846
Servia.....	1,455,036	42,374
Turkey.....	5,904,359	170,686
Greece.....	1,732,815	49,852
British possessions in Mediterranean.....	42,108	1,226
China.....	3,197,773	92,417
Japan.....	2,336,214	67,161
British India.....	2,454,382	70,914
Asia ^a	192,903	5,608
Egypt.....	1,297,407	37,582
German Africa.....	200,619	5,911
Cape Colony.....	72,752	2,138
Africa ^a	202,823	5,976
United States.....	46,958	1,306
Mexico.....	46,958	1,384
Brazil.....	695,772	20,501
Argentina.....	378,309	11,085
Chile.....	34,833	1,026
Peru.....	55,115	1,624
America ^a	57,981	1,708
British Australasia.....	24,030	708
Total.....	28,655,171	830,126
Cellulose, ground:		
Mechanically produced—		
Trieste, free port.....	3,549,626	51,945
Hamburg, free port.....	501,106	7,209
Germany.....	9,926,432	136,658
Switzerland.....	4,207,921	80,257
Italy.....	16,884,811	240,462
France.....	31,967	346
Spain.....	74,515	1,074
Belgium.....	332,674	4,781
Netherlands.....	27,117	400
Great Britain.....	2,560,423	37,437
Russia.....	1,220,025	15,794
Roumania.....	76,068	1,086
Bulgaria.....	274,913	3,833

^a Subdivisions not specified.

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

AUSTRIA-HUNGARY—Continued.

EXPORTS (SPECIAL), CALENDAR YEAR 1906—Continued.

Exported to —	Quantity.	Value.
Cellulose, ground—Continued.		
Mechanically produced—Continued.	<i>Pounds.</i>	
Servia.....	350,782	\$5,082
Turkey.....	4,109,815	80,161
Greece.....	579,148	8,447
British possessions in Mediterranean.....	23,369	344
Japan.....	425,929	6,275
British India.....	239,420	3,442
Asia ^a	22,487	331
Egypt.....	1,138,676	16,672
Tunis.....	11,684	172
United States.....	104,278	1,536
Brazil.....	316,581	4,578
Argentina.....	148,149	2,097
Australasia ^a	223,326	3,290
Total.....	47,361,202	673,709
Cellulose, chemically produced:		
Bleached—		
Trieste, free port.....	1,126,110	33,182
Hamburg, free port.....	597,887	17,617
Germany.....	16,535,382	487,227
Switzerland.....	3,599,671	106,067
Italy.....	21,153,578	623,304
France.....	20,306,130	598,333
Portugal.....	46,856	1,351
Belgium.....	486,555	14,337
Netherlands.....	139,110	4,099
Great Britain.....	6,821,473	200,999
Russia.....	1,451,289	42,763
Roumania.....	264,552	7,795
Greece.....	21,626	643
Bulgaria.....	22,487	663
Turkey.....	97,223	2,865
China.....	320,989	9,458
Japan.....	1,178,800	34,734
British India.....	89,286	2,631
United States.....	2,035,066	59,964
Brazil.....	441,581	13,011
Argentina.....	481,705	14,194
American countries ^b	80,688	2,378
Total.....	77,297,244	2,277,615
Unbleached—		
Trieste, free port.....	787,263	15,948
Hamburg, free port.....	535,497	10,848
Germany.....	15,492,385	313,839
Switzerland.....	3,357,165	66,008
Italy.....	23,863,693	483,422
France.....	16,422,507	332,681
Spain.....	22,266	451
Belgium.....	2,296,871	46,509
Great Britain.....	1,372,584	27,805
Greece.....	44,533	902
Russia.....	968,260	19,615
Roumania.....	110,450	2,237
Bulgaria.....	66,138	1,340
Turkey.....	66,138	1,340
Japan.....	58,642	1,188
British India.....	44,974	911
Egypt.....	22,046	447
United States.....	68,784	1,393
Brazil.....	11,905	241
British Australasia.....	22,046	447
Total.....	65,633,147	1,329,572
Paper, stock, of wood, straw, esparto, and other similar fibers, mechanically ground:		
Unbleached—		
Trieste, free port.....	387,569	4,193
Hamburg, free port.....	53,792	582
Germany.....	2,675,943	28,952

^a Not separately stated.

^b Subdivisions not specified.

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

AUSTRIA-HUNGARY—Continued.

EXPORTS (SPECIAL), CALENDAR YEAR 1906—Continued.

Exported to—	Quantity.	Value.
Paper stock, of wood, straw, esparto, and other similar fibers, mechanically ground—Continued.		
Unbleached—Continued.	<i>Pounds.</i>	
Switzerland.....	1,701,731	\$18,412
Italy.....	15,123,998	163,633
France.....	830,914	8,990
Spain.....	319,887	3,461
Belgium.....	372,798	4,033
Netherlands.....	22,707	246
Great Britain.....	958,560	10,371
Russia.....	4,200,204	45,444
Roumania.....	356,704	3,859
Bulgaria.....	65,477	708
Servia.....	28,680	310
Turkey.....	115,080	1,245
Greece.....	68,563	742
Japan.....	137,788	1,491
British India.....	27,558	298
Egypt.....	9,039	98
United States.....	139,772	1,512
Brazil.....	36,596	396
Argentina.....	22,928	248
British Australasia.....	154,963	1,677
Australasia.....	26,676	289
Total.....	27,837,925	301,190

^a Subdivisions not separately stated.

BELGIUM.

IMPORTS (SPECIAL), CALENDAR YEAR 1906.

Imported from—	Quantity.	Value.
Printing paper, including writing, drawing, and wrapping paper:	<i>Pounds.</i>	
Germany.....	19,324,042	\$981,191
United Kingdom.....	3,124,134	158,630
Austria-Hungary.....	1,117,547	56,744
United States.....	104,538	5,308
France.....	1,455,475	73,903
Hamburg, free port.....	1,999,372	101,519
Italy.....	79,438	4,034
Norway.....	343,360	17,434
Netherlands.....	2,463,286	125,075
Sweden.....	1,621,899	82,353
Switzerland.....	18,265	929
Other countries.....	27,740	1,407
Total.....	31,679,106	1,608,527
Wood pulp:		
Germany.....	20,502,555	380,874
Austria-Hungary.....	2,219,737	41,236
United States.....	6,155,922	114,358
France.....	443,786	8,244
Hamburg, free port.....	1,844,783	28,697
Norway.....	118,446,394	2,200,365
Netherlands.....	1,475,669	27,413
Russia.....	41,532,131	771,538
Sweden.....	36,513,083	678,299
Other countries.....	92,709	1,722
Total.....	228,926,769	4,252,746

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

BELGIUM—Continued.

EXPORTS (SPECIAL), CALENDAR YEAR 1906.

Exported to—	Quantity.	Value.
	<i>Pounds.</i>	
Printing paper, including writing, drawing, and wrapping paper:		
Germany.....	997,864	\$50,667
United Kingdom.....	41,927,621	2,128,902
Australia.....	3,528,092	179,141
Brazil.....	4,992,669	253,506
Canada.....	1,723,786	87,526
Cape Colony.....	558,266	28,346
Chile.....	546,686	27,758
China.....	2,293,201	167,722
Cuba.....	1,041,095	83,328
Denmark.....	749,435	27,898
Egypt.....	464,979	23,609
Spain.....	861,002	43,718
United States.....	3,221,829	163,590
France.....	1,474,493	69,791
Greece.....	269,213	13,669
Hamburg, free port.....	1,669,153	99,477
British India.....	3,337,659	189,782
Dutch East Indies.....	400,316	20,326
Straits Settlements.....	306,899	15,581
Italy.....	105,799	5,372
Japan.....	13,060,824	693,637
Mexico.....	413,698	21,006
Norway.....	629,839	31,980
Netherlands.....	9,090,344	492,033
Peru.....	379,991	19,294
Portugal.....	65,020	3,301
Argentina.....	1,391,704	70,666
Sweden.....	297,515	15,108
Switzerland.....	268,926	13,655
Turkey.....	2,489,271	126,394
Other countries.....	2,121,031	107,703
Total.....	103,878,192	5,274,483
Wood pulp:		
Germany.....	8,933,293	241,421
United Kingdom.....	2,564,250	69,299
Brazil.....	23,942	647
Cuba.....	2,068,186	55,893
Spain.....	10,627,563	287,209
United States.....	6,586,130	177,990
France.....	24,311,262	657,009
British India.....	184,554	4,988
Italy.....	1,574,384	42,548
Mexico.....	2,594,673	70,121
Netherlands.....	4,476,969	120,990
Portugal.....	2,089,496	56,469
Argentina.....	1,459,972	39,456
Sweden.....	77,007	2,081
Other countries.....	660,704	17,852
Total.....	68,232,385	1,843,974

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

DENMARK (INCLUDING COPENHAGEN, FREE PORT).

IMPORTS (GENERAL), CALENDAR YEAR 1905.

Imported from—	Quantity.	Value.
Wood mass for paper (cellulose, straw mass, and paper mass):	<i>Pounds.</i>	
Norway.....	40,929,062	
Sweden.....	39,180,463	
Russia.....	508,022	
Germany.....	1,526,532	
Netherlands.....	587,945	
United States.....	143,200	
Total.....	82,885,264	\$604,608
Writing and printing paper, and other paper with coloring matter added to the mass:		
Norway.....	660,934	
Sweden.....	5,753,834	
Russia.....	8,612	
Germany.....	4,717,547	
United Kingdom.....	607,587	
Netherlands.....	1,599,555	
Belgium.....	530,266	
France.....	16,294	
Italy.....	137	
Austria-Hungary.....	87	
Switzerland.....	71	
United States.....	44,303	
Warehouses.....	578,745	
Total.....	14,517,972	739,680

EXPORTS (TOTAL), CALENDAR YEAR 1905.

Exported to—	Quantity.	Value.
Wood mass for paper manufacture (cellulose, straw and paper mass):	<i>Pounds.</i>	
Norway.....	557	
Sweden.....	133,783	
Russia.....	523,781	
Germany.....	142,307	
United Kingdom.....	6,614	
United States.....	13,550,684	
West Indies.....	1,145,840	
Total.....	15,503,566	\$120,627
Writing and printing paper, and all paper with coloring matter added in the mass:		
Norway.....	39,468	
Sweden.....	136,535	
Russia.....	34,943	
Germany.....	432,369	
United Kingdom.....	235,839	
Netherlands.....	145,504	
Belgium.....	49,604	
United States.....	1,808,874	
West Indies.....	442,022	
East Indies, China, and Pacific Islands.....	986,559	
Faroes.....	24,797	
Iceland.....	64,496	
Warehouses.....	7,035	
Total.....	4,408,045	(a)

a Value not separately stated.

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

FRANCE.

IMPORTS (SPECIAL), CALENDAR YEAR 1906.

Imported from—	Quantity.	Value.
Cellulose, mechanically produced:	<i>Pounds.</i>	
Russia.....	37,371,656	.....
Sweden.....	100,876,464	.....
Norway.....	178,517,089	.....
United Kingdom.....	1,264,350	.....
Germany.....	5,708,870	.....
Canada.....	8,278,948	.....
Other foreign countries.....	893,093	.....
Tunis.....	220	.....
Total.....	332,905,690	\$3,788,678
Cellulose, chemically produced:		
Russia.....	4,302,082	.....
Sweden.....	64,488,951	.....
Norway.....	46,649,147	.....
Germany.....	47,903,577	.....
Belgium.....	11,597,195	.....
Switzerland.....	9,619,008	.....
Austria-Hungary.....	39,006,349	.....
United States.....	4,119,337	.....
Other foreign countries.....	3,161,008	.....
French colonies.....	13,229	.....
Total.....	230,921,183	4,861,747

EXPORTS (SPECIAL), CALENDAR YEAR 1906.

Exported to—	Quantity.	Value.
Cellulose, mechanically produced:	<i>Pounds.</i>	
Germany.....	154,324	.....
Spain.....	5,482,675	.....
Other foreign countries.....	14,330	.....
French colonies.....	1,984	.....
Total.....	5,653,313	\$64,338
Cellulose, chemically produced:		
Germany.....	299,167	.....
Belgium.....	445,554	.....
Switzerland.....	119,711	.....
Italy.....	176,811	.....
Other foreign countries.....	36,817	.....
Total.....	1,078,060	22,650

GERMANY.

IMPORTS (SPECIAL), CALENDAR YEAR 1906.

Imported from—	Quantity.	Value.
Wood pulp, ground:	<i>Pounds.</i>	
Norway.....	1,741,634	\$23,800
Austria-Hungary.....	9,722,286	95,200
Russia.....	3,396,084	23,800
Finland.....	13,448,060	142,800
Sweden.....	8,752,262	95,200
Other countries.....	220,000	(a)
Total.....	37,279,786	380,800
Cellulose, straw mass, and other fiber mass:		
Netherlands.....	1,410,944	23,800
Norway.....	5,996,512	119,000
Austria-Hungary.....	30,379,388	714,000

a Values less than 100,000 marks are omitted in the German official reports.

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

GERMANY—Continued.

IMPORTS (SPECIAL), CALENDAR YEAR 1905—Continued.

Imported from—	Quantity.	Value.
Cellulose, straw mass, and other fiber mass—Continued.	<i>Pounds.</i>	
Russia.....	3,659,636	\$71,400
Finland.....	6,503,570	119,000
Sweden.....	19,444,572	357,000
United States.....	4,078,510	95,200
Other countries.....	992,000	(a)
Total.....	72,465,202	1,499,400
Pulp wood (wood for grinding and wood for the manufacture of cellulose):		
Austria-Hungary.....	359,526,168	975,800
Russia.....	281,725,834	761,000
Finland.....	215,543,742	571,200
Other countries.....	2,160,508	(a)
Total.....	858,956,252	2,308,000
Printing paper, including colored:		
From all countries.....	400,000	100,000

a Values less than 100,000 marks are omitted in the German official reports.

EXPORTS (SPECIAL), CALENDAR YEAR 1905.

Exported to—	Quantity.	Value.
Wood pulp, ground:	<i>Pounds.</i>	
France.....	6,018,619	\$71,400
Other countries.....	3,439,211	47,600
Total.....	9,457,830	119,000
Cellulose, straw mass, and other fiber mass:		
Belgium.....	13,249,790	309,400
France.....	36,861,286	833,000
Great Britain.....	19,114,076	428,400
Italy.....	17,923,580	404,600
Netherlands.....	9,744,431	214,200
Austria-Hungary.....	4,188,782	95,200
Russia.....	3,681,719	95,200
Switzerland.....	9,435,784	214,200
Spain.....	4,872,215	119,000
Argentina.....	4,012,413	95,200
Mexico.....	1,653,467	47,600
United States.....	15,807,142	357,000
Other countries.....	3,659,673	47,600
Total.....	144,204,348	3,260,600
Pulp wood (wood for the manufacture of cellulose):		
France.....	43,475,153	142,800
Switzerland.....	34,325,970	119,000
Other countries.....	705,479	(a)
Total.....	78,506,602	261,800
Printing paper, including colored:		
Great Britain.....	16,733,084	404,600
Netherlands.....	6,018,619	142,800
British India, etc.....	1,631,421	47,600
Japan.....	5,687,926	142,800
Argentina.....	13,448,196	309,400
Brazil.....	7,627,993	190,400
Chile.....	1,829,837	47,600
Uruguay.....	1,388,912	23,800
United States.....	1,212,542	23,800
Australian Commonwealth.....	3,086,471	71,400
Other countries.....	8,994,859	214,200
Total.....	67,659,860	1,618,400

a Value not stated.

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

GREECE.

IMPORTS (SPECIAL), CALENDAR YEAR 1905.

Imported from—	Quantity.	Value.
<i>Paper, ordinary, unsized:</i>	<i>Pounds.</i>	
Austria-Hungary.....	949,916	\$64,986
Germany.....	312,618	21,387
Netherlands.....	38,895	2,661
Belgium.....	17,079	1,168
Italy.....	14,862	1,017
United Kingdom.....	8,291	567
France.....	550	37
Total.....	1,342,211	91,823
<i>Paper, sized:</i>		
Austria-Hungary.....	553,438	49,220
Germany.....	76,723	6,824
Netherlands.....	13,787	1,226
Italy.....	10,712	953
Belgium.....	9,803	872
United Kingdom.....	6,522	580
Turkey.....	4,957	441
France.....	4,370	388
Total.....	680,312	60,504
<i>Paper, printing, for newspapers:</i>		
Netherlands.....	1,351,930	85,170
Austria-Hungary.....	390,529	24,045
Germany.....	136,977	8,434
France.....	1,918	118
Total.....	1,881,354	117,767

ITALY.

IMPORTS (SPECIAL), CALENDAR YEAR, 1905.

Imported from—	Quantity.	Value.
<i>Cellulose:</i>	<i>Pounds.</i>	
Austria-Hungary.....	38,216,080	\$936,767
Belgium.....	1,275,141	31,257
Denmark.....	111,332	2,729
France.....	302,030	7,403
Germany.....	29,012,536	711,166
United Kingdom.....	2,559,982	62,751
Netherlands.....	2,390,889	58,606
Norway and Sweden.....	1,083,120	26,550
Switzerland.....	1,555,786	38,136
United States.....	586,644	14,380
Total.....	77,093,540	1,899,745
<i>Wood and straw pulp, etc. (wet), other than cellulose:</i>		
Switzerland.....	23,148	263
<i>Wood and straw pulp, etc. (dry), other than cellulose:</i>		
Austria-Hungary.....	12,069,524	190,191
Belgium.....	236,774	3,731
Germany.....	3,683,666	58,047
United Kingdom.....	363,318	5,725
Netherlands.....	249,781	3,936
Norway and Sweden.....	45,856	723
United States.....	23,369	368
Total.....	16,672,288	262,721
<i>Paper in paste, tinted or colored in the mass, all kinds:</i>		
Austria-Hungary.....	251,986	16,545
Belgium.....	77,381	5,081
France.....	483,689	31,758
Germany.....	2,481,939	162,960
United Kingdom.....	257,938	16,936
Netherlands.....	6,173	405
Switzerland.....	363,318	23,855
United States.....	85,979	5,645
Total.....	4,008,403	263,185

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

ITALY—Continued.

EXPORTS (SPECIAL), CALENDAR YEAR 1905.

Exported to—	Quantity.	Value.
Wood pulp and paper:	<i>Pounds.</i>	
Austria-Hungary.....	1,527,567	\$113,670
Belgium.....	41,887	3,117
France.....	91,711	6,824
Germany.....	245,372	18,268
United Kingdom.....	780,587	56,597
Greece.....	13,889	1,034
Malta.....	104,498	7,776
Montenegro.....	9,259	689
Netherlands.....	10,382	771
Portugal.....	21,605	1,608
Spain.....	16,314	1,214
Switzerland.....	217,594	16,192
Turkey in Europe.....	503,310	37,453
Turkey in Asia.....	296,944	22,245
British India and Ceylon.....	649,916	49,382
China.....	16,755	1,247
Japan.....	47,399	3,527
Dutch possessions.....	1,764	131
Egypt.....	780,428	58,074
Tunis.....	100,452	7,924
Tripoli.....	21,385	1,591
Eritrea.....	18,298	1,368
Cape Colony.....	19,180	1,427
All other Africa.....	4,189	312
United States.....	252,808	18,817
Canada.....	5,512	410
Mexico.....	134,260	9,973
Cuba and Porto Rico.....	4,189	312
Other Central American States.....	245,592	18,275
Brazil.....	472,225	35,139
Peru.....	242,947	18,078
Argentina.....	2,362,670	175,812
Uruguay.....	10,802	804
Chile.....	392,639	29,217
All other South America.....	1,764	131
Australia.....	5,071	377
Total.....	10,761,534	718,751
Cellulose:		
France.....	106,482	2,610
Germany.....	335,981	8,236
Switzerland.....	329,367	8,074
Total.....	771,830	18,920

NORWAY.

IMPORTS, CALENDAR YEAR 1906.

Imported from—	Quantity.	Value.
Wood mass, cellulose, pulp, etc.:	<i>Pounds.</i>	
Sweden by sea and rail.....	94,754,127	
Denmark.....	143,630	
Germany.....	6,548	
United Kingdom.....	1,102	
Total.....	94,905,407	\$1,153,713
Printing, drawing, and filtering paper:		
Sweden by sea and rail.....	532,190	
Denmark.....	32,915	
Germany.....	522,178	
Netherlands.....	354,089	
Belgium.....	530,161	
United Kingdom.....	138,008	
Other countries.....	265	
Total.....	2,179,776	92,755

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

NORWAY—Continued.

EXPORTS, CALENDAR YEAR 1906.

Exported to—	Quantity.	Value.
	<i>Pounds.</i>	
Wood mass, dry (Norwegian produce):		
Sweden by sea.....	815,702	
Denmark.....	1,456,069	
Germany.....	4,086,887	
Netherlands.....	385,806	
Belgium.....	1,278,205	
United Kingdom.....	5,176,379	
France.....	9,094,262	
Portugal and Madeira.....	191,800	
Spain.....	4,217,376	
Italy.....	1,351,751	
East Indies.....	306,880	
China.....	286,598	
United States.....	132,276	
Total.....	28,790,180	\$248,490
Wood mass, dry (foreign produce):		
Germany.....	262,215	
Netherlands.....	353,353	
Belgium.....	1,102,529	
United Kingdom.....	6,693,916	
France.....	5,830,351	
Portugal and Madeira.....	22,046	
Spain.....	1,990,423	
Total.....	16,254,824	140,298
Wood mass, wet (Norwegian produce):		
Sweden by sea.....	44,092	
Denmark.....	28,948,007	
Germany.....	337,304	
Netherlands.....	50,426,080	
Belgium.....	85,255,322	
United Kingdom.....	487,923,373	
France.....	144,485,361	
Spain.....	1,147,494	
Total.....	798,567,033	3,252,073
Wood mass, wet (foreign produce):		
Belgium.....	2,080,481	
United Kingdom.....	22,000,145	
France.....	1,335,789	
Total.....	25,416,415	103,502
Wood pulp (Traepap, German, "Holzstoffpappe,") (Norwegian produce):		
Sweden, by sea.....	15,432	
Denmark.....	411,642	
Russia, Arctic ports.....	2,800	
Germany.....	751,350	
Netherlands.....	1,045,091	
Belgium.....	498,041	
United Kingdom.....	7,647,449	
Other countries.....	7,496	
Total.....	10,379,301	201,884
Printing paper (Norwegian produce):		
Sweden, by sea.....	2,116	
Denmark.....	181,196	
Russia, Baltic ports.....	82,673	
Germany.....	11,180,452	
Netherlands.....	4,078,995	
Belgium.....	176,831	
United Kingdom.....	93,637,916	
France.....	3,580,138	
Africa.....	138,670	
Australia.....	315,809	
Other countries.....	17,769	
Total.....	113,392,565	2,219,308
Cellulose, dry (Norwegian produce):		
Sweden.....	110,893	
Denmark.....	5,580,913	
Russia, Baltic ports.....	222,226	

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

NORWAY—Continued.

EXPORTS, CALENDAR YEAR 1906—Continued.

Exported to—	Quantity.	Value.
Cellulose, dry (Norwegian produce)—Continued.	<i>Pounds.</i>	
Germany.....	13,245,349	
Netherlands.....	3,472,765	
Belgium.....	13,448,196	
United Kingdom.....	140,398,684	
France.....	35,483,132	
Portugal and Madeira.....	1,844,740	
Spain.....	9,243,959	
Italy.....	630,478	
East Indies.....	897,215	
Japan.....	936,964	
Australia.....	661,387	
United States.....	42,365,963	
Mexico and Central America.....	2,236,810	
Argentina.....	220,462	
Total.....	271,000,136	\$4,941,518
Cellulose, dry (foreign produce):		
Denmark.....	286,601	
Germany.....	819,921	
Netherlands.....	650,364	
Belgium.....	14,030,878	
United Kingdom.....	29,814,607	
France.....	10,930,782	
Portugal and Madeira.....	44,092	
Spain.....	2,621,583	
Italy.....	242,508	
Total.....	59,441,336	1,083,872
Cellulose, wet (Norwegian produce):		
Denmark.....	1,822,782	
Netherlands.....	1,819,872	
Belgium.....	765,866	
United Kingdom.....	11,063,346	
France.....	110,231	
Spain.....	768,862	
Total.....	16,350,979	129,203
Cellulose, wet (foreign produce):		
Netherlands.....	22,046	188
Blocks for the manufacture of cellulose:	<i>Cubic feet.</i>	
Sweden, by sea.....	918	
Denmark.....	14,477	
United Kingdom.....	21,824	
France.....	1,451,370	
Spain.....	15,610	
Total.....	1,504,200	85,626

Weight, calculated in the Statistiske Centralbureau, 23,427,250 kilograms, equal to 51,647,715 pounds.

PORTUGAL.

IMPORTS (SPECIAL), CALENDAR YEAR 1906.

Imported from—	Quantity.	Value.
Printing paper, for newspapers:	<i>Pounds.</i>	
Germany.....	424,915	\$16,215
Austria-Hungary.....	1,113	59
Belgium.....	9,982	335
France.....	666	422
Netherlands.....	14,802	531
United Kingdom.....	70,190	5,521
Sweden.....	91,257	1,662
Switzerland.....	25,020	589
Total.....	637,945	25,324

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

ROUMANIA.

IMPORTS (SPECIAL), CALENDAR YEAR 1906.

Imported from—	Quantity.	Value.
Pulp of wood, straw, and other vegetable fibers, mechanically produced:	<i>Pounds.</i>	
Austria-Hungary.....	248,776	.....
Germany.....	267	.....
Total.....	249,043	73,488
Printing paper, uncalendered:		
United Kingdom.....	84	.....
Austria-Hungary.....	4,392	.....
Belgium.....	443	.....
Switzerland.....	53	.....
France.....	243	.....
Germany.....	1,206	.....
Italy.....	212	.....
Total.....	6,632	261
Printing paper, calendered:		
United Kingdom.....	68	.....
Austria-Hungary.....	2,092	.....
France.....	414	.....
Germany.....	3,996	.....
Total.....	6,570	345
Paper in rolls:		
United Kingdom.....	82	.....
Austria-Hungary.....	2,895	.....
Switzerland.....	2	.....
France.....	2,727	.....
Germany.....	11,896	.....
Russia.....	110	.....
Total.....	17,712	930

RUSSIA.

IMPORTS (SPECIAL), CALENDAR YEAR 1906.

Imported from—	Quantity.	Value.
Wood paper mass, pressed into sheets like pasteboard, etc.:	<i>Pounds.</i>	
Austria-Hungary.....	361	\$36
Germany.....	63,702	857
China.....	289	10
Finland.....	16,394,378	482,930
Total.....	16,458,730	483,833
Cellulose of all kinds:		
Austria-Hungary.....	500,079	15,689
Belgium.....	188,180	5,904
Great Britain.....	2,311	73
Germany.....	3,850,695	120,812
Netherlands.....	531,244	16,667
Denmark.....	189,732	5,953
Norway.....	137,202	4,306
United States.....	55,179	1,731
Sweden.....	189,157	5,841
Finland.....	6,313,027	162,056
Total.....	11,953,866	339,032
Paper, unsized, not elsewhere specified, white and colored:		
Austria-Hungary.....	1,697	364
Great Britain.....	10,328	1,502
Germany.....	414,458	32,680
Netherlands.....	13,217	1,931
Denmark.....	325	155
China.....	138,706	22,676
Persia.....		1

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

RUSSIA—Continued.

IMPORTS (SPECIAL), CALENDAR YEAR 1905—Continued.

Imported from—	Quantity.	Value.
Paper, unsized, not elsewhere specified, white and colored—Continued.	<i>Pounds.</i>	
Turkey.....	72	\$3
France.....	6,175	909
Sweden.....	1,950	366
Finland.....	831	46
Total.....	587,759	60,643
Writing, printing, and other paper:		
Austria-Hungary.....	30,659	13,361
Belgium.....	6,139	2,841
Bulgaria.....		2
Great Britain.....	11,231	3,642
Germany.....	395,066	186,297
Netherlands.....	2,636	581
Greece.....	253	103
Denmark.....	433	102
Egypt.....		3
Spain.....	36	19
Italy.....	397	112
China.....	73,777	9,462
Norway.....	36	22
Persia.....	36	3
Portugal.....		4
Roumania.....	72	9
United States.....	831	257
Turkey.....	758	266
France.....	19,753	7,378
Switzerland.....	2,239	1,094
Sweden.....	1,083	846
Finland.....	95,517	9,969
Other countries.....	686	250
Total.....	641,638	236,623

EXPORTS (SPECIAL), CALENDAR YEAR 1905.

Exported to—	Quantity.	Value.
Wood paper mass:	<i>Pounds.</i>	
Belgium.....	11,828,774	\$139,853
Great Britain.....	16,095,949	203,733
Germany.....	3,120,763	37,215
Denmark.....	275,282	5,926
Portugal.....	147,120	1,776
France.....	108,589	1,751
Argentina.....	6,551,006	74,740
Total.....	38,127,483	462,994

RUSSIA—FINLAND.

IMPORTS (SPECIAL), CALENDAR YEAR 1906.

Imported from—	Quantity.	Value.
Wood and paper pulp, statuary composition, etc.:	<i>Pounds.</i>	
Germany.....	370,152	\$12,962
Netherlands.....	3,316	116
Russia.....	24	1
All other countries.....	1,210	42
Total.....	374,702	13,121
Printing paper:		
Germany.....	16,495	1,444
Belgium.....	2,006	176
United Kingdom.....	2,000	175
Russia.....	6,424	562
All other countries.....	553	48
Total.....	27,478	2,406

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

RUSSIA—FINLAND—Continued.

EXPORTS (SPECIAL), CALENDAR YEAR 1906.

Exported to—	Quantity.	Value.
	<i>Pounds.</i>	
Wood pulp, mechanically produced, wet:		
Russia.....	7,261,526	\$31,785
Netherlands.....	1,763,336	7,718
Belgium.....	1,321,699	5,785
United Kingdom.....	3,720,968	16,287
France.....	9,458,015	41,400
Total.....	23,525,534	102,975
Wood pulp, mechanically produced, dry:		
Russia.....	16,068,412	170,829
Germany.....	10,535,421	106,065
Netherlands.....	2,597,598	26,151
Belgium.....	7,399,097	73,856
United Kingdom.....	1,627,886	16,390
France.....	22,629,875	227,826
Spain.....	6,875,170	69,216
Mexico.....	2,204,022	22,195
Total.....	70,775,181	712,528
Wood pulp, chemically produced, wet:		
Russia.....	273,920	6,475
Wood pulp, chemically produced, dry:		
Russia.....	2,046,355	48,369
Denmark.....	165,898	3,921
Germany.....	13,372,426	316,080
Netherlands.....	784,316	18,539
Belgium.....	1,726,440	40,807
United Kingdom.....	9,109,418	215,317
France.....	1,605,757	35,891
Mexico.....	573,201	13,549
Total.....	29,283,812	692,173
Printing and drawing paper:		
Russia.....	59,712,178	2,247,784
Germany.....	1,292,634	39,606
United Kingdom.....	132,251	4,059
All other countries.....	221	7
Total.....	61,137,284	2,291,449

SERVIA.

IMPORTS (SPECIAL), CALENDAR YEAR 1906.

Imported from—	Quantity.	Value.
	<i>Pounds.</i>	
Printing paper, of all colors, satin finished or not:		
Austria-Hungary.....	2,124,996	\$65,190
Roumania.....	2	2
France.....	2,044	363
Total.....	2,127,042	65,555
Paper stock of wood, straw, and other vegetable materials: Germany.....	2	1

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

SPAIN.

IMPORTS (GENERAL), CALENDAR YEAR 1906.

Imported from—	Quantity.	Value.
Paper pulp, including paper cuttings and old paper:	<i>Pounds.</i>	
Germany.....	11,069,063	\$145,956
Austria-Hungary.....	812,796	10,717
Belgium.....	158,404	2,089
Denmark.....	49,042	646
France.....	5,272,189	69,519
United Kingdom.....	401,859	5,299
Netherlands.....	299,339	3,947
Italy.....	22,046	291
Norway.....	32,266,037	425,458
Russia.....	5,719,081	75,411
Sweden.....	20,053,225	264,420
Switzerland.....	658,514	8,663
Total.....	76,781,595	1,012,436

EXPORTS (GENERAL), CALENDAR YEAR 1906.

Exported to—	Quantity.	Value.
Roll paper for printing or writing:	<i>Pounds.</i>	
Canary Islands.....	52,359	\$2,843
Ceuta.....	750	41
Germany.....	22,765	1,236
Argentina.....	80,938	4,394
Belgium.....	274,986	14,031
Bolivia.....	3,792	206
Colombia.....	28,561	1,551
Costa Rica.....	985	53
Cuba.....	217,550	11,812
Chile.....	26,427	1,435
Ecuador.....	3,790	206
Philippine Islands.....	129,216	7,016
France.....	367,200	19,937
Guatemala.....	7,394	402
Netherlands.....	271,362	14,734
Italy.....	584	32
Morocco.....	639	35
Mexico.....	94,326	5,121
Peru.....	10,355	562
Portugal.....	176,611	9,589
Porto Rico.....	27,379	1,486
Santo Domingo.....	538	45
Turkey.....	304	17
Uruguay.....	5,465	297
Venezuela.....	628	34
Total.....	1,805,204	98,015

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

SWEDEN.

IMPORTS (SPECIAL), CALENDAR YEAR 1906.

Imported from—	Quantity.	Value.
Wood mass, chemically prepared, dry:	<i>Pounds.</i>	
Norway.....	2,547,977	\$44,912
Denmark.....	4,762	84
Germany.....	2,014,475	35,509
Netherlands.....	491,776	8,668
Belgium.....	93,942	1,656
Great Britain.....	558	10
United States.....	236,452	4,168
Total.....	5,389,942	95,007
Wood mass, chemically prepared, wet:		
Norway.....	113,151	997
Germany.....	2,800	25
Netherlands.....	461,114	4,064
Total.....	577,065	5,086
Wood mass, mechanically prepared, dry:		
Norway.....	143,705	1,275
Germany.....	220	2
Total.....	143,925	1,277
Wood mass, mechanically prepared, wet:		
Norway.....	1,749,615	70,188
Germany.....	21,380	857
Total.....	1,770,995	71,045

EXPORTS (SPECIAL), CALENDAR YEAR 1906.

Exported to—	Quantity.	Value.
Wood mass, chemically prepared, dry:	<i>Pounds.</i>	
Norway.....	9,452,762	\$166,622
Russia.....	33,069	583
Denmark.....	9,073,302	159,933
Germany.....	45,094,623	794,873
Netherlands.....	7,937,259	139,908
Belgium.....	30,187,999	532,117
Great Britain.....	326,836,619	5,761,077
France.....	71,617,095	1,262,379
Spain.....	13,976,928	246,368
Portugal.....	1,118,835	19,722
Italy.....	1,668,049	29,402
Austria.....	22,399	395
British South Africa.....	78,396	1,382
British East Indies.....	1,008,935	17,784
Japan.....	15,141,799	266,901
Other Asia.....	78,396	1,382
United States.....	15,545,457	274,017
Mexico.....	2,610,634	46,017
Brazil.....	642,844	11,331
Uruguay.....	112,435	1,982
Argentina.....	7,260,427	127,978
Total.....	559,498,262	9,862,153
Wood mass, chemically prepared, wet:		
Norway.....	2,861,848	25,223
Denmark.....	21,970,042	193,886
Germany.....	44,378	391
Netherlands.....	225,972	1,991
Belgium.....	1,674,054	14,754
Great Britain.....	25,208,111	222,169
France.....	22,399	198
Spain.....	164,243	1,447
Total.....	52,200,047	460,059

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

SWEDEN—Continued.

EXPORTS (SPECIAL), CALENDAR YEAR 1906—Continued.

Exported to—	Quantity.	Value.
Wood mass, mechanically prepared, dry:	<i>Pounds.</i>	
Norway.....	13,025,537	\$115,591
Germany.....	27,077,735	240,292
Netherlands.....	9,700,778	86,086
Belgium.....	2,710,335	24,052
Great Britain.....	7,579,686	67,263
France.....	31,389,225	278,553
Spain.....	11,329,805	100,543
Portugal.....	5,496,824	48,797
Italy.....	1,667,163	14,795
Japan.....	224,869	1,996
United States.....	100,927	896
Mexico.....	55,115	499
Brazil.....	673,946	5,981
Uruguay.....	322,136	2,859
Argentina.....	7,582,149	67,285
Total.....	118,938,230	1,065,478
Wood mass, mechanically prepared, wet:		
Norway.....	12,892,113	51,718
Denmark.....	9,405,485	37,731
Netherlands.....	12,252,108	49,151
Belgium.....	121,253	496
Great Britain.....	66,502,546	266,782
France.....	82,606,618	331,286
Spain.....	44,092	177
Argentina.....	31,358	126
Total.....	183,855,573	787,557

SWITZERLAND.

IMPORTS (SPECIAL), CALENDAR YEAR 1906.

Imported from—	Quantity.	Value.
Fiber material for the manufacture of paper, mechanically produced (wood mass, wood meal), wet or dry; also rag pulp:	<i>Pounds.</i>	
Germany.....	674,614	\$8,288
Austria-Hungary.....	4,199,144	51,465
France.....	55,116	676
Italy.....	209,439	2,567
Sweden.....	96,122	1,178
Total.....	5,234,435	64,154
Fiber material for the manufacture of paper, chemically produced (cellulose, straw mass, esparto mass, etc.), wet or dry, unbleached:		
Germany.....	2,799,650	53,920
Austria-Hungary.....	1,197,651	23,064
Italy.....	247,800	4,772
Netherlands.....	67,021	1,291
Russia.....	22,046	425
Sweden.....	1,191,598	20,863
Total.....	5,525,666	104,335
Fiber material for the manufacture of paper, chemically produced (cellulose, straw mass, esparto mass, etc.), wet or dry, bleached:		
Germany.....	3,164,956	77,580
Austria-Hungary.....	2,457,493	60,238
Italy.....	179,897	4,410
Netherlands.....	112,215	2,750
Russia.....	44,533	1,092
Sweden.....	22,708	557
United States.....	22,928	562
Total.....	6,004,730	147,189

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

SWITZERLAND—Continued.

IMPORTS (SPECIAL), CALENDAR YEAR 1906—Continued.

Imported from—	Quantity.	Value.
Printing paper for newspapers, containing wood fiber, weighing 45 to 55 grams per square meter:	<i>Pounds.</i>	
Germany.....	12,787	\$560
France.....	9,039	396
Italy.....	5,071	222
Belgium.....	220	10
Netherlands.....	2,425	106
Great Britain.....	441	19
Total.....	29,983	1,313
Other printing, writing, and drawing paper, of one color:		
Germany.....	2,404,582	178,930
Austria-Hungary.....	397,934	29,611
France.....	204,555	19,686
Italy.....	19,401	1,444
Belgium.....	83,996	6,250
Netherlands.....	14,771	1,069
Great Britain.....	241,186	21,114
Sweden.....	5,291	394
United States.....	9,700	849
Total.....	3,441,416	259,377
Other printing, writing, and drawing paper of more than one color:		
Germany.....	32,408	2,836
Austria-Hungary.....	3,307	290
France.....	3,527	309
Great Britain.....	6,614	579
Total.....	45,856	4,014

EXPORTS (SPECIAL), CALENDAR YEAR 1906.

Exported to—	Quantity.	Value.
Fiber material for the manufacture of paper, mechanically produced (wood mass, wood meal), wet or dry; also rag pulp:	<i>Pounds.</i>	
Germany.....	453,491	\$27,967
France.....	1,479,963	60,813
Netherlands.....	441	29
Great Britain.....	67,682	3,681
Total.....	2,001,577	92,690
Fiber material for the manufacture of paper, chemically produced (cellulose, straw mass, esparto mass, etc.), wet or dry, unbleached:		
Germany.....	340,173	7,287
France.....	5,740,837	113,648
Italy.....	1,402,360	28,564
Total.....	7,483,370	149,499
Fiber material for the manufacture of paper, chemically produced (cellulose, straw mass, esparto mass, etc.), wet or dry, bleached:		
Germany.....	14,110	483
France.....	2,896,874	68,006
Italy.....	1,461,444	31,808
Great Britain.....	44,533	2,895
Total.....	4,416,961	103,192
Printing paper for newspapers containing wood fiber, weighing 45 to 55 grams per square meter:		
Germany.....	2,425	216
Austria-Hungary.....	2,866	183
France.....	34,392	1,690
Italy.....	441	22
Spain.....	1,323	127
United States.....	2,205	187
Total.....	43,652	2,425

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

SWITZERLAND—Continued.

EXPORTS (SPECIAL), CALENDAR YEAR 1906—Continued.

Exported to—	Quantity.	Value.
Other printing, writing, and drawing paper of one color:	<i>Pounds.</i>	
Germany.....	49,825	\$5,832
Austria-Hungary.....	26,455	1,371
France.....	73,635	5,567
Italy.....	30,203	3,252
Belgium.....	1,102	122
Great Britain.....	1,102	174
Russia.....	441	82
Spain.....	4,850	455
Roumania.....	441	145
Egypt.....	2,205	434
British East Indies.....	882	267
Philippine Islands.....	220	97
China.....	441	39
United States.....	2,425	196
Total.....	194,227	18,035
Other printing, writing, and drawing paper of more than one color:		
Germany.....	1,543	221
Austria-Hungary.....	441	60
France.....	70,328	4,537
United States.....	220	33
Total.....	72,532	5,151

UNITED KINGDOM.

IMPORTS (GENERAL), CALENDAR YEAR 1906.

Imported from—	Quantity.	Value.
Esparto and other vegetable fiber (for making paper):	<i>Pounds.</i>	
Algeria.....	193,032,000	\$1,378,898
Spain.....	86,441,600	915,083
Tripoli.....	80,050,880	564,699
Tunis.....	61,830,720	435,036
Other countries.....	194,880	1,192
Total.....	421,550,080	3,294,888
Pulp of wood, chemical, dry:		
Russia.....	26,203,520	485,866
Sweden.....	284,583,040	5,245,119
Norway.....	172,545,280	3,227,482
Germany.....	16,988,160	329,287
Netherlands.....	5,812,800	115,964
Portugal.....	4,970,560	80,224
Austria-Hungary.....	3,953,600	84,735
United States.....	6,027,840	126,442
British possessions.....	16,345,280	279,620
Other countries.....	1,583,680	29,948
Total.....	539,063,760	10,004,687
Pulp of wood, chemical, wet:		
Sweden.....	16,264,640	144,341
Norway.....	20,404,160	178,021
Total.....	36,668,800	322,362
Pulp of wood, mechanical, dry:		
Russia.....	4,477,760	39,954
Sweden.....	4,336,640	42,173
Norway.....	6,121,920	57,834
Netherlands.....	2,240	24
Total.....	14,938,560	139,985

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

UNITED KINGDOM—Continued.

IMPORTS (GENERAL), CALENDAR YEAR 1906—Continued.

Imported from—	Quantity.	Value.
	<i>Pounds.</i>	
Pulp of wood, mechanical, wet:		
Russia.....	3,776,640	\$16,371
Sweden.....	60,914,880	340,154
Norway.....	513,412,480	2,462,104
Canada.....	181,348,160	900,414
Other countries.....	143,360	788
Total.....	768,595,520	3,719,831
Paper, unprinted, on reels:		
Russia.....	919,744	27,301
Sweden.....	74,909,184	1,684,465
Norway.....	68,067,888	1,762,698
Germany.....	6,896,392	229,743
Netherlands.....	4,671,072	151,898
Belgium.....	936,208	39,467
France.....	841,232	51,268
Italy.....	17,920	375
Austria-Hungary.....	82,768	2,394
United States.....	45,690,512	1,219,355
Canada.....	28,060,704	696,226
Total.....	231,092,624	5,964,090
Paper, unprinted, not on reels:		
Russia.....	21,899,472	634,387
Sweden.....	105,852,432	3,051,193
Norway.....	103,932,528	2,820,404
Denmark.....	694,400	25,335
Germany.....	40,201,840	1,633,285
Netherlands.....	50,671,600	2,161,159
Belgium.....	32,404,848	1,341,928
France.....	5,723,536	772,518
Italy.....	656,544	48,402
Austria-Hungary.....	2,297,344	68,530
Japan.....	327,824	80,176
United States.....	13,142,964	600,867
Canada.....	12,086,224	237,879
Other British possessions.....	49,056	3,212
Other countries.....	87,584	7,300
Total.....	390,038,066	13,486,576

EXPORTS (SPECIAL), CALENDAR YEAR 1906.

Exported to—	Quantity.	Value.
	<i>Pounds.</i>	
Paper, writing or printing, and envelopes:		
Foreign countries—		
Russia.....	27,032	\$30,630
Sweden.....	233,232	25,807
Denmark.....	576,464	37,822
Germany.....	1,025,584	95,680
Netherlands.....	2,200,736	144,871
Belgium.....	2,500,288	160,561
France.....	8,823,472	582,866
Portuguese East Africa.....	2,011,184	89,714
Egypt.....	1,633,296	107,374
China.....	2,608,592	145,912
Japan.....	6,848,016	333,730
United States.....	1,440,544	140,783
Chile.....	1,574,160	93,062
Brazil.....	585,648	42,947
Uruguay.....	337,904	27,349
Argentina.....	1,604,512	151,582
Other foreign countries.....	2,610,720	212,253
Total.....	36,994,384	2,422,933

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

UNITED KINGDOM—Continued.

EXPORTS (SPECIAL), CALENDAR YEAR 1906—Continued.

Exported to—	Quantity.	Value.
Paper, writing or printing, and envelopes—Continued.	<i>Pounds.</i>	
British possessions—		
Cape of Good Hope.....	9,266,656	\$490,601
Natal.....	2,943,248	183,710
Bombay.....	9,622,032	464,182
Madras.....	4,608,688	216,185
Bengal.....	4,363,296	262,553
Burma.....	1,035,104	51,590
Straits Settlements.....	1,399,552	85,918
Ceylon.....	1,623,360	112,153
Hongkong.....	744,464	40,166
Western Australia.....	1,191,344	70,978
South Australia.....	2,087,232	110,800
Victoria.....	9,150,288	490,294
New South Wales.....	10,535,280	546,055
Queensland.....	1,668,016	101,875
Tasmania.....	429,184	19,700
New Zealand.....	8,976,576	515,757
Canada.....	5,964,000	360,505
British West Indies.....	569,406	44,903
Other British possessions.....	1,428,896	122,636
Total.....	77,806,624	4,270,553
Grand total.....	114,801,008	6,693,486

BERMUDA.

IMPORTS (SPECIAL), CALENDAR YEAR 1905.

Imported from—	Quantity.	Value.
Paper and stationery:	<i>Pounds.</i>	
United Kingdom.....		\$6,891
Canada.....		5,047
United States.....		12,646
Total.....		24,586

CANADA.

IMPORTS (SPECIAL), YEAR ENDING JUNE 30, 1906.

Imported from—	Quantity.	Value.
Wood pulp:	<i>Pounds.</i>	
Great Britain.....		\$875
Germany.....		31
United States.....		50,670
Total.....		51,579
Printing paper of not greater value than 2½ cents per pound, O. C.:		
United States.....	244,638	5,564
Printing paper not elsewhere specified:		
Great Britain.....	2,491,560	148,732
Austria-Hungary.....	800	132
China.....	1,700	103
France.....	3,000	229
Germany.....	73,514	5,749
Netherlands.....	18,024	1,194
Japan.....	1,104	255
United States.....	5,928,156	359,161
Total.....	8,517,857	515,555

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

CANADA—Continued.

EXPORTS (SPECIAL), YEAR ENDING JUNE 30, 1906.

Exported to—	Quantity.	Value.
	<i>Cords.</i>	
Wood pulp:		
Great Britain.....		\$908, 702
New Zealand.....		1, 258
France.....		46, 337
Japan.....		5, 329
Mexico.....		6, 896
United States.....		2, 419, 628
Total.....		3, 478, 150
Wood, blocks and other, for pulp:		
United States.....	614, 286	2, 649, 106

NEWFOUNDLAND.

IMPORTS (GENERAL), YEAR ENDING JUNE 30, 1906.

Imported from—	Quantity.	Value.
	<i>Pounds.</i>	
Printing paper:		
United Kingdom.....		\$2, 480
Canada.....		29, 924
United States.....		19, 410
Other countries.....		
Total.....		51, 784

COSTA RICA.

IMPORTS (GENERAL), CALENDAR YEAR 1906.

Imported from—	Quantity.	Value.
	<i>Pounds.</i>	
Printing paper:		
Germany.....	19, 284	\$1, 015
Belgium.....	5, 007	234
Spain.....	127, 643	31, 468
United States.....	46, 881	2, 230
Italy.....	3, 239	576
Other countries.....	13, 823	377
Total.....	215, 877	35, 900

SAN SALVADOR.

IMPORTS (SPECIAL), CALENDAR YEAR 1904.

Imported from—	Quantity.	Value.
	<i>Pounds.</i>	
Paper and stationery:		
Germany.....	99, 129	\$9, 905
Austria-Hungary.....	7, 663	433
Belgium.....	54, 765	3, 017
China.....	57	11
Spain.....	9, 082	1, 234
United States.....	20, 856	3, 867
France.....	19, 370	1, 670
United Kingdom.....	7, 551	1, 095
Italy.....	15, 044	1, 109
Total.....	233, 487	22, 341

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

MEXICO.

IMPORTS (GENERAL) YEAR ENDING JUNE 30, 1906.

Imported from—	Quantity.	Value.
Paper paste of vegetable fibers in sheets, undyed, including old paper and paper cuttings:	<i>Pounds.</i>	
Germany.....	2,434,694	\$56,378
Austria-Hungary.....	436,345	11,260
Belgium.....	118,938	2,486
Canada.....	1,363,796	10,285
Spain.....	1,138	72
United Kingdom.....	3,585,072	66,438
France.....	542	28
Norway.....	790,076	14,014
Russia.....	684,131	14,940
Sweden.....	837,087	13,496
Switzerland.....	688,343	15,743
Total.....	11,240,162	205,140
Paper of all kinds, weighing not over 50 grams per square meter:		
Germany.....	1,460,021	64,845
Austria-Hungary.....	147,241	7,790
Belgium.....	18,177	1,282
China.....	944	114
Spain.....	784,194	94,977
United States.....	1,278,357	67,815
France.....	196,071	10,216
United Kingdom.....	15,538	2,510
Guatemala.....	7	1
Netherlands.....	4,894	498
Italy.....	340,410	19,478
Japan.....	339	21
Norway.....	741,564	17,114
Sweden.....	245,028	7,172
Switzerland.....	70,195	2,084
Total.....	5,302,980	295,917
White paper containing over 40 per cent wood pulp and weighing more than 50 and not over 150 grams per square meter:		
Germany.....	15,703	765
Belgium.....	2	1
Canada.....	69,961	1,878
Spain.....	87,498	3,885
United States.....	568,350	18,091
France.....	6,744	283
United Kingdom.....	23,168	664
Italy.....	1,316	167
Norway.....	7,175	190
Total.....	779,917	25,914
White paper containing not to exceed 40 per cent wood pulp and weighing over 50 and not more than 150 grams per square meter:		
Germany.....	224,461	14,317
Belgium.....	22,112	1,526
Spain.....	66	5
United States.....	417,691	40,878
France.....	12,648	1,550
United Kingdom.....	7,436	971
Italy.....	1,068	152
Total.....	685,472	59,399
Colored paper, dyed in the paste, weighing over 50 and not more than 150 grams per square meter:		
Germany.....	44,562	4,488
Austria-Hungary.....	1,279	56
Belgium.....	18,285	549
Spain.....	9,963	832
United States.....	113,433	9,118
France.....	18,278	2,161
United Kingdom.....	181	10
Italy.....	765	47
Total.....	206,666	17,261

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

MEXICO—Continued.

IMPORTS (GENERAL), YEAR ENDING JUNE 30, 1906—Continued.

Imported to—	Quantity.	Value.
Paper, uncolored, weighing over 50 and not more than 150 grams per square meter:	<i>Pounds.</i>	
Germany.....	855,965	\$21,027
Austria-Hungary.....	226,953	4,569
Belgium.....	18,527	169
Cuba.....	265	12
China.....	408	32
Spain.....	120,296	7,162
United States.....	610,156	23,776
France.....	120,936	2,388
United Kingdom.....	9,297	498
Italy.....	8,571	431
Norway.....	500,742	10,865
Russia.....	142,783	2,625
Sweden.....	520,075	14,933
Total.....	3,134,974	88,487

NOTE.—No exports separately stated.

BRITISH WEST INDIES—BARBADOS.

IMPORTS (SPECIAL), CALENDAR YEAR 1905.

Imported from—	Quantity.	Value.
Paper and stationery:	<i>Pounds.</i>	
United Kingdom.....		\$18,080
British possessions.....		1,017
United States.....		12,444
Total.....		31,511

BRITISH WEST INDIES—JAMAICA.

IMPORTS (SPECIAL), YEAR ENDING MARCH 31, 1906.

Imported from—	Quantity.	Value.
Printing paper:	<i>Pounds.</i>	
United Kingdom.....		\$4,794
Canada.....		97
United States.....		17,544
Total.....		22,435

BRITISH WEST INDIES—LEEWARD ISLANDS.

IMPORTS (SPECIAL), CALENDAR YEAR 1905.

Imported from—	Quantity.	Value.
Paper and stationery:	<i>Pounds.</i>	
United Kingdom.....		\$10,779
British possessions.....		1,285
United States.....		5,893
Other foreign countries.....		200
Total.....		18,157

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

BRITISH WEST INDIES—TRINIDAD AND TOBAGO.

IMPORTS (GENERAL), YEAR ENDING MARCH 31, 1906.

Imported from—	Quantity.	Value.
	<i>Pounds.</i>	
Paper and stationery:		
United Kingdom.....		\$62,827
British North America.....		2,973
France.....		23,442
United States.....		10,040
Other countries.....		1,825
Total.....		100,907

BRITISH WEST INDIES—ST. VINCENT.

IMPORTS (SPECIAL), YEAR ENDING MARCH 31, 1906.

Imported from—	Quantity.	Value.
	<i>Pounds.</i>	
Paper and stationery:		
United Kingdom.....		\$1,348
British West Indies.....		1,056
United States.....		10
Total.....		2,414

ARGENTINA.

IMPORTS (SPECIAL), CALENDAR YEAR 1905.

Imported from—	Quantity.	Value.
	<i>Pounds.</i>	
Wood pulp for manufacture of paper:		
Germany.....	17,112,737	\$224,717
Austria-Hungary.....	565,812	7,430
United States.....	964,075	12,659
Netherlands.....	724,904	9,519
United Kingdom.....	190,259	2,498
Russia.....	6,551,119	86,026
Sweden and Norway.....	4,777,503	62,735
Total.....	30,896,409	405,584
Printing paper:		
Germany.....	9,749,585	240,261
Belgium.....	445,378	11,489
Canada.....	769,881	17,203
United States.....	6,928,771	191,761
Italy.....	10,267	3,296
Netherlands.....	294,943	7,954
United Kingdom.....	53,861	1,415
Sweden and Norway.....	88,538	2,326
Total.....	18,341,224	481,695

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

BRAZIL.

IMPORTS (GENERAL), CALENDAR YEAR 1906.

Imported from—	Quantity.	Value.
	<i>Pounds.</i>	
Wood pulp for the manufacture of paper:		
Germany.....	222,947	\$4,063
Great Britain.....	20,542	620
Austria-Hungary.....	401,325	8,181
Sweden.....	2,927,189	63,587
Russia.....	224,719	3,078
All other countries.....	257,465	3,860
Total.....	4,054,187	83,339
Printing paper:		
Germany.....	9,653,203	374,408
France.....	742,853	36,047
Great Britain.....	431,952	26,184
United States.....	1,153,661	35,747
Italy.....	339,323	19,271
Portugal.....	375	69
Belgium.....	3,405,955	160,925
Austria-Hungary.....	548,204	24,453
Argentina.....	5,150	297
Switzerland.....	22,663	606
Netherlands.....	139,322	5,440
Sweden.....	1,783,402	53,075
Russia.....	157,095	4,753
Norway.....	7,166,321	239,881
Canada.....	6,762	180
Total.....	25,550,241	981,338

(No exports separately stated.)

CHILE.

IMPORTS (SPECIAL), CALENDAR YEAR 1906.

Imported from—	Quantity.	Value.
	<i>Pounds.</i>	
Printing paper:		
Argentina.....	1,490	\$92
Great Britain.....	258,026	12,816
Germany.....	1,724,923	85,637
France.....	16,182	804
Belgium.....	8,113	403
Italy.....	47,090	2,339
Spain.....	7,738	384
United States.....	1,000,264	90,265
Total.....	4,062,835	201,740
Paper pulp:		
Germany.....	890,989	11,765

BRITISH GUIANA.

IMPORTS (SPECIAL), YEAR ENDING MARCH 31, 1906.

Imported from—	Quantity.	Value.
	<i>Pounds.</i>	
Paper, including manufactures:		
United Kingdom.....		\$29,911
British possessions.....		1,638
Other foreign countries.....		4,061
Total.....		35,610

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

PERU.

IMPORTS (SPECIAL), CALENDAR YEAR 1905.

Imported from—	Quantity.	Value.
Printing paper:	<i>Pounds.</i>	
Germany.....	889,464	\$39,268
Belgium.....	52,792	2,331
Chile.....	24,030	1,051
United States.....	1,825,945	80,614
France.....	4,081	189
United Kingdom.....	2,154	92
Italy.....	7,304	321
Total.....	2,805,770	123,867

NOTE.—No exports.

URUGUAY.

IMPORTS (SPECIAL), CALENDAR YEAR 1903.

Imported from—	Quantity.	Value.
Printing paper:	<i>Pounds.</i>	
Germany.....	2,028,976	\$133,227
Argentina.....	62,168	4,061
Belgium.....	440,424	28,919
Brazil.....	348	23
United States.....	609,803	40,047
France.....	18,616	1,222
United Kingdom.....	552,511	36,279
Italy.....	327,781	21,523
Total.....	4,040,627	265,321

BRITISH INDIA.

IMPORTS (GENERAL), YEAR ENDING MARCH 31, 1906.

Imported from—	Quantity.	Value.
Printing paper:	<i>Pounds.</i>	
United Kingdom.....	8,196,832	\$390,858
Austria-Hungary.....	3,289,552	103,593
Belgium.....	777,616	28,737
Germany.....	4,155,648	133,605
Norway.....	598,864	18,230
Sweden.....	483,504	12,570
Other countries.....	56,336	4,248
Total.....	17,558,352	691,841

STRAITS SETTLEMENTS.

IMPORTS (GENERAL), CALENDAR YEAR 1905.

Imported from—	Quantity.	Value.
Paper and paper ware:	<i>Pounds.</i>	
United Kingdom.....		\$139,790
Hongkong.....		321,282
Other British possessions.....		896
Germany.....		19,082
Belgium.....		20,700
Austria-Hungary.....		208,729
China.....		128,883
United States.....		47,942
British India.....		1,108
Other foreign countries.....		16,404
Total.....		904,798

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

STRAITS SETTLEMENTS—Continued.

EXPORTS (GENERAL), CALENDAR YEAR 1905.

Exported to—	Quantity.	Value.
	<i>Pounds.</i>	
Paper and paper ware:		
Hongkong.....		\$6,378
British North Borneo.....		6,389
Sarawak.....		13,606
Federated Malay States.....		122,565
Other British possessions.....		9,845
Dutch possessions.....		120,962
Italy.....		5,402
Siam.....		14,024
Malay Peninsula (native).....		5,300
French possessions.....		11,380
Philippine Islands.....		6,087
Other foreign countries.....		5,064
Total.....		327,292

CEYLON.

IMPORTS (SPECIAL), CALENDAR YEAR 1904.

Imported from—	Quantity.	Value.
	<i>Reams.</i>	
Printing paper:		
United Kingdom.....	31,289	\$47,568
British India.....	556	553
Austria-Hungary.....	2,938	2,925
Belgium.....	915	847
France.....	50	22
Germany.....	10,401	10,132
Netherlands.....	292	148
United States.....	836	362
Total.....	47,277	62,557

SIAM.

IMPORTS (GENERAL), CALENDAR YEAR 1906.

Imported from—	Quantity.	Value.
	<i>Pounds.</i>	
Writing and printing paper:		
United Kingdom.....	177,630	\$52,223
Germany.....	46,823	13,766
Austria-Hungary.....	28,207	8,310
Straits Settlements.....	14,114	4,150
Italy.....	8,553	2,515
Belgium.....	7,611	2,238
Sweden.....	4,222	1,241
India.....	3,149	926
Hongkong.....	1,199	353
Norway.....	1,559	461
Spain.....	906	266
Switzerland.....	754	222
China.....	100	29
United States.....	191	56
Total.....	295,088	86,756

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

NEW ZEALAND.

IMPORTS (GENERAL), CALENDAR YEAR 1906.

Imported from—	Quantity.	Value.
	<i>Pounds.</i>	
Printing paper:		
United Kingdom	6,982,080	\$330,132
Victoria	47,936	2,910
New South Wales	624,176	19,530
Canada	5,517,904	157,804
British Columbia	203,504	5,616
Spain	11,424	306
Austria	16,688	628
Germany	344,288	11,582
Norway	173,152	5,718
Sweden	116,144	3,905
Denmark	1,792	73
Belgium	13,440	808
United States	3,500,560	90,067
Total	17,553,088	647,266

EXPORTS (GENERAL), CALENDAR YEAR 1906.

Exported to—	Quantity.	Value.
	<i>Pounds.</i>	
Printing paper:		
New South Wales	16,768	\$1,002
Fij Islands	1,120	88
South Sea Islands	1,120	29
Total	20,008	1,119

PHILIPPINE ISLANDS.

IMPORTS (GENERAL), CALENDAR YEAR 1907.

Imported from—	Quantity.	Value.
	<i>Pounds.</i>	
Printing paper:		
United States	1,700,908	\$52,068
United Kingdom	140,210	5,929
Germany	748,336	22,878
France	5,981	134
Spain	90,712	6,783
Italy	5,002	421
Austria-Hungary	181,445	5,650
Belgium	12,079	462
Denmark	15,977	542
Switzerland	20,121	619
China	13,289	418
Hongkong	5,779	245
Japan	27,293	717
Total	2,995,032	97,466

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

AUSTRALIA.

IMPORTS (SPECIAL), CALENDAR YEAR 1906.

Imported from—	Quantity.	Value.
	<i>Pounds.</i>	
Printing paper (uncoated):		
United Kingdom.....		\$907,038
Canada.....		77,119
Hongkong.....		5
New Zealand.....		1,212
Austria.....		2,263
Belgium.....		25,510
France.....		530
Germany.....		266,047
Netherlands.....		131
Norway.....		1,475
South Sea Islands.....		39
Sweden.....		1,065
United States.....		846,995
Total.....		2,129,449

EXPORTS (GENERAL), CALENDAR YEAR 1906.

Exported to—	Quantity.	Value.
	<i>Pounds.</i>	
Printing paper (uncoated):		
Fiji Islands.....		\$671
New Zealand.....		3,898
Norfolk Islands.....		73
Marshall Islands.....		19
New Caledonia.....		399
New Hebrides.....		5
South Sea Islands.....		234
Total.....		5,209

BRITISH SOUTH AFRICA.

IMPORTS, CALENDAR YEAR 1907.

Imported from—	Quantity.	Value.
	<i>Pounds.</i>	
Wood pulp and wood wool:		
United Kingdom.....		\$4,604
Belgium.....		1,528
Germany.....		3,698
Netherlands.....		4,005
Norway.....		1,110
Sweden.....		3,942
Other countries.....		10
Total.....		18,897
Printing paper:		
United Kingdom.....		396,970
Dominion of Canada.....		92,716
Austria.....		2,730
Belgium.....		7,207
France.....		2,253
Germany.....		29,968
Netherlands.....		1,470
Italy.....		195
Norway.....		3,197
Russia.....		78
Sweden.....		8,867
Switzerland.....		54
United States.....		3,747
Total.....		549,442

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

CAPE OF GOOD HOPE.

IMPORTS (SPECIAL), CALENDAR YEAR 1905.

Imported from—	Quantity.	Value.
	<i>Pounds.</i>	
Printing paper:		
United Kingdom.....		\$331,453
British possessions.....		2,229
Germany.....		39,292
United States.....		10,103
Other foreign countries.....		2,862
Total.....		385,938

CANARY ISLANDS.

IMPORTS (GENERAL), CALENDAR YEAR 1906.

Imported from—	Quantity.	Value.
	<i>Pounds.</i>	
Paper in rolls, all sorts, weighing not over 20 grams per square meter:		
Spain.....	8,492	\$1,256
Germany.....	22,957	3,395
Belgium.....	1,102	163
France.....	176	26
Italy.....	217	33
Total.....	32,944	4,874
Paper in rolls, all sorts, weighing 21 to 40 grams per square meter:		
Spain.....	32,344	2,879
Germany.....	20,243	1,790
France.....	505	45
United Kingdom.....	2,359	209
Italy.....	377	33
Norway.....	10,260	907
Total.....	66,088	5,863
Paper in rolls, all sorts, weighing 41 to 50 grams per square meter:		
Spain.....	13,261	720
Germany.....	16,696	906
Belgium.....	2,727	145
United Kingdom.....	9,290	504
Norway.....	11,072	601
Total.....	53,048	2,879
Paper in rolls, all sorts, weighing 51 to 100 grams per square meter:		
Spain.....	10,399	919
Germany.....	2,855	252
Belgium.....	992	58
France.....	1,014	90
United Kingdom.....	57	5
Portugal.....	82	8
Total.....	15,399	1,332

Statement showing trade in wood pulp, cellulose, and other articles used in the manufacture of paper, and paper manufactures, etc.—Continued.

TUNIS.

IMPORTS (GENERAL), CALENDAR YEAR 1905.

Imported from—	Quantity.	Value.
Printing paper:	<i>Pounds.</i>	
France.....	885, 193	\$28, 060
Algeria.....	1, 989	125
United Kingdom.....	234	13
Austria-Hungary.....	13, 426	303
Belgium.....	25, 968	604
Italy.....	24, 328	1, 286
Germany.....	3, 355	103
Total.....	954, 493	30, 494

EXPORTS (GENERAL), CALENDAR YEAR 1905.

Exported to—	Quantity.	Value.
Cellulose:	<i>Pounds.</i>	
France.....	57, 600	\$1, 183

EGYPT.

IMPORTS (SPECIAL), CALENDAR YEAR 1907.

Imported from—	Quantity.	Value.
Printing and writing paper:	<i>Pounds.</i>	
United Kingdom.....		\$130, 777
British possessions in Far East.....		54
Germany.....		88, 934
America.....		692
Austria-Hungary.....		184, 652
Belgium.....		4, 478
France and Algeria.....		57, 399
Greece.....		143
Italy.....		43, 849
Turkey.....		94
Other countries.....		36, 069
Total.....		547, 131

NOTE.—No quantities stated.



PULP AND PAPER INVESTIGATION HEARINGS

HD 9821
AS
1908a

NOVEMBER 19, 20, 1908

SELECT COMMITTEE OF THE HOUSE OF REPRESENTATIVES

JAMES R. MANN, Illinois, *Chairman*

JAMES M. MILLER, Kansas

HENRY T. BANNON, Ohio

WILLIAM H. STAFFORD, Wisconsin

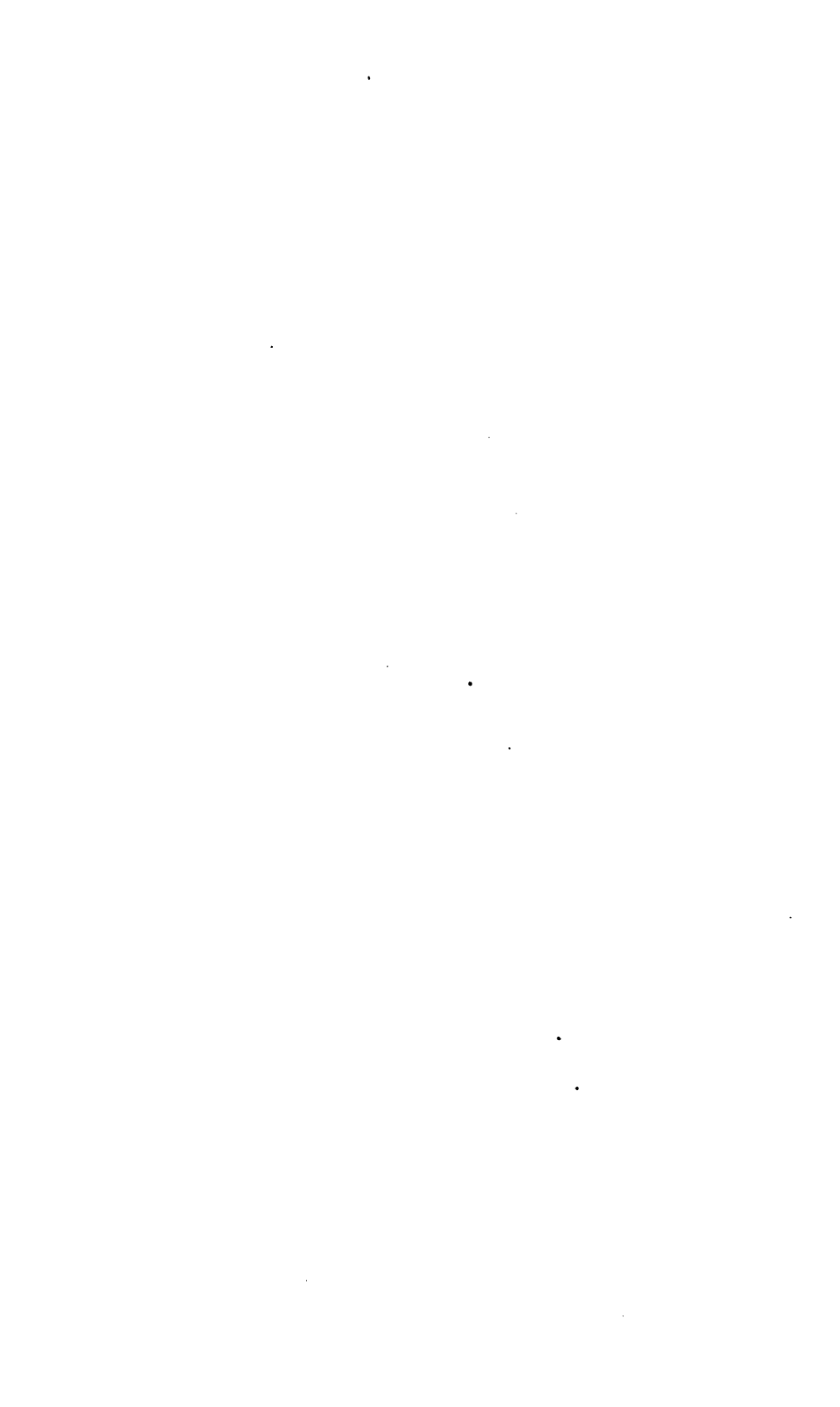
THETUS W. SIMS, Tennessee

WILLIAM H. RYAN, New York

NO. 34

WASHINGTON
GOVERNMENT PRINTING OFFICE.

1908



WOOD PULP, PRINT PAPER, ETC.

SELECT COMMITTEE ON PULP AND PAPER INVESTIGATION,
ROOM 1350 FIRST NATIONAL BANK BUILDING,
Chicago, Ill., November 19, 1908.

The committee was called to order at 2 p. m., Hon. James R. Mann presiding.

STATEMENT OF MR. JAMES M. ABELL, MANAGER OF CITY SALES, J. W. BUTLER PAPER COMPANY, CHICAGO.

(The witness was duly sworn by the chairman.)

The CHAIRMAN. Will you give us your full name?

Mr. ABELL. James M. Abell.

The CHAIRMAN. And you are connected with what company?

Mr. ABELL. J. W. Butler Paper Company.

The CHAIRMAN. What position do you occupy there?

Mr. ABELL. I am the manager of the city sales.

The CHAIRMAN. How long has the J. W. Butler Paper Company been in existence?

Mr. ABELL. Since 1844, if you take the different style of names of the company. As the J. W. Butler Paper Company since 1876, I think.

The CHAIRMAN. But it has been a continuous organization under different names since 1844?

Mr. ABELL. Yes, sir.

The CHAIRMAN. Is the J. W. Butler Paper Company one of the largest paper concerns or paper-handling concerns in Chicago?

Mr. ABELL. One of the largest paper jobbing houses in Chicago.

The CHAIRMAN. In the country, I suppose?

Mr. ABELL. And in the country.

The CHAIRMAN. Can you furnish to us statement as to prices at which different kinds or grades of papers have been sold for a series of years back?

Mr. ABELL. I can, based upon our prices taken from our catalogues covering the period between the years 1879 and 1908.

The CHAIRMAN. Those prices would be fairly accurate as to the prices at which paper actually sold?

Mr. ABELL. They would be fairly accurate as the prices at which the paper was sold for in a general way out of stock. They would not be the carload price of paper sold direct from the mill.

The CHAIRMAN. But they would be relatively fairly accurate as to these lots sold out of stock?

Mr. ABELL. Very accurate for lots sold from stock.

The CHAIRMAN. And would show, I suppose, fairly the trend of prices in all places of the paper trade?

Mr. ABELL. It would show the trend of prices relatively.

The CHAIRMAN. Your prices of paper sold out of stock would ordinarily be a little higher than carload lots sold at the mill?

Mr. ABELL. Yes.

The CHAIRMAN. But as the carload lots f. o. b. mills go up and down through a series of years the smaller lots sold out of stock would go up and down?

Mr. ABELL. Yes, sir.

The CHAIRMAN. You have prepared a list at my request?

Mr. ABELL. I have a list, which I prepared at your request, of print paper of the standard grade of S. and S. C. book paper and our St. Charles fine writing paper. Your request was to cover print, one grade of book, and one grade of writing paper. This I have done.

The CHAIRMAN. The print paper referred to as standard grade is what?

Mr. ABELL. Is the ordinary news-print paper.

The CHAIRMAN. Now used?

Mr. ABELL. Yes; used by most newspapers.

The CHAIRMAN. What is the S. and S. C. book?

Mr. ABELL. It is the cheapest grade of what is called a free sheet, or in other words, free from ground wood.

The CHAIRMAN. Not supposed to have any ground wood in it?

Mr. ABELL. No ground wood in this particular sheet.

The CHAIRMAN. As a matter of fact, doesn't it have any ground wood in it?

Mr. ABELL. Not traceable.

The CHAIRMAN. What does that stand for, S. and S. C.?

Mr. ABELL. Sized and super-calendered. The relative price between this paper and the ground wood sheet is only 10 cents a hundredweight, so it would give you a line on the ground wood super.

The CHAIRMAN. Is this supposed to be mostly sulphite or soda fiber, or does it have some rag in it?

Mr. ABELL. Sulphite or soda principally, a little rag, but usually either sulphite or soda process.

The CHAIRMAN. The St. Charles writing paper, what is the grade of that?

Mr. ABELL. That is known as a fine writing. It sells at the present time at about 8 cents a pound. Fine writing paper.

The CHAIRMAN. That is mostly rag and some fiber?

Mr. ABELL. It is mostly rag; in fact, all rag except the chemicals. No sulphite in this, an all rag paper. And these writings are usually designated as fine and superfines.

The CHAIRMAN. These prices run for news-print paper from 7½ cents a pound in 1879, to 2.75 cents a pound in 1908, the lowest price having been reached in 1897 at 2 cents a pound. You say these figures were taken from your price lists?

Mr. ABELL. From our net price list. We run what we call a net price list, which is not for ordinary quantities.

The CHAIRMAN. That is delivered where?

Mr. ABELL. F. o. b. Chicago.

The CHAIRMAN. It is delivered f. o. b. Chicago?

Mr. ABELL. Yes, sir. Delivered to any printing house in Chicago, or delivered f. o. b. the cars for country shipment at that price.

The CHAIRMAN. Well, according to this, this writing paper has also gone down in price.

Mr. ABELL. Those prices have fluctuated about the same relative way as the print have, writing and book paper.

The CHAIRMAN. We have been led to suppose at different times that the decrease in the cost of news-print paper was owing to the introduction of very cheap process of making ground wood, but you run down on St. Charles writing paper from 15 cents a ton in 1879 to 8 cents a ton in 1908, with the lowest price 7 cents a ton in 1899.

Mr. ABELL. That is largely due to improvement in machinery. There was a time when the width of the web of these machines making writing paper was very much narrower than it is to-day. They can produce much more tonnage for the same amount of expense. This largely accounts for the decrease in the price of these writings.

The CHAIRMAN. I see you have missed here the years 1880, 1881, and 1882. You are not able to give us the prices for these years?

Mr. ABELL. That is owing to the fact that we can not find our price lists or we did not issue any during these years. There were some years during this period where prices did not fluctuate much, and we did not get up a price list. I think the absence of prices for those dates is largely accounted for by that fact.

The CHAIRMAN. There are a number of years missing in this list you handed me. That is the case of all those missing; you have been unable to obtain them either because you have not issued a price list or can not find them?

Mr. ABELL. Misplaced the price list or did not issue one and I think the latter would cover. I do not think I misplaced any.

The CHAIRMAN. From 1879 to 1883 are missing, 1883, 1884, and 1885 are here, 1886 is missing, 1887 is here, and 1888, 1889, 1890, and 1891 and 1892 are missing; 1893 is here and 1894 and 1895 are missing; then comes 1896, 1897, 1898. and 1899 and every year down to date.

Mr. ABELL. For the last ten years we have issued a price list nearly every three months. Changed our rule.

The CHAIRMAN. This former method where you only issued a price list may be once in several years; of course, you would not stick to that price list?

Mr. ABELL. That would be owing to the changing conditions in the market; yes, sir.

The CHAIRMAN. There has been quite a controversy going on, and is yet, apparently, as to the market price of news print paper. Mr. Herman Ridder has just issued a circular letter for publication, copy of which came to me a few days ago, bitterly attacking the chief of the Census Bureau for some statement he made, based on the Paper Trade Journal prices, and while I am not sure just what the effect or value it has on the question, we have been trying for some time to ascertain what the real prices of paper were. In your judgment, this would actually state the actual price the paper sold out of the store here?

Mr. ABELL. On these dates those are the prices at which we sold the goods, to the best of my knowledge and belief, during the years stated in the ordinary way out of the store.

The CHAIRMAN. Of course, which does not mean there might not be some variation?

Mr. ABELL. Some variation one way or the other.

The CHAIRMAN. Mr. Ridder in his statement recently complains, I think, that the Paper Trade Journal makes a difference of \$10 a ton between the market price of news-print paper in Philadelphia and New York, which, of course, could not possibly be true.

Mr. ABELL. Not 50 cents a hundredweight.

The CHAIRMAN. I don't remember exactly what his statement is. Is any particular company making this St. Charles writing paper?

Mr. ABELL. Yes, sir.

The CHAIRMAN. Made only by one?

Mr. ABELL. At the present time it is being made by one company. During that period of years it has been made at the different mills. I do not know whether it was a standard quality of paper, or representing a particular firm making it. It is a standard quality of paper with us and at the present time represents the name of one manufacturer.

The CHAIRMAN. Has your company been interested in any way in the agreement or combination of paper manufacturers to affect either the output or control the sale of paper through your house?

Mr. ABELL. No, sir.

The CHAIRMAN. It has been charged that sometimes when a prospective purchaser would communicate with a paper mill, or with one paper jobbing house, that his request would be turned over to somebody else on the plea that the company addressed could not furnish him paper and it must be furnished by some other company who had the right to have his business. Do you know anything about it?

Mr. ABELL. I don't know anything about that. I think possibly some such conditions might have arisen in some mills.

The CHAIRMAN. Has your company been a party to any such arrangement as that?

Mr. ABELL. It has not. Occasionally there are conditions where we are given certain watermarked paper of a mill, the mill making that special watermark for us where a mill might refer a customer back, saying that we were the only jobber handling that particular watermark.

The CHAIRMAN. That would not apply to news print-paper?

Mr. ABELL. No; that is not watermarked at all.

Mr. STAFFORD. From what mills do you receive your supply of print paper?

Mr. ABELL. We get some of our print paper from the St. Regis Paper Company, some from the Philadelphia Paper Company, some from the Sheboygan Paper Company, and some others—can't think of their names right now. Occasionally some one of our customers will specify he wants a certain mill's make and in that case we fill his order according to his preference.

Mr. STAFFORD. What metropolitan papers does your company furnish with a supply of news-print paper?

Mr. ABELL. I could not give you the list of those, because they would be confined to the country business. If it was city I could tell you, but I can say that we have none of the large dailies in the city of Chicago.

Mr. STAFFORD. Does your house furnish a supply of paper to any of the dailies in cities the size of Milwaukee; or, name the principal newspaper in the largest city that you do supply paper to.

Mr. ABELL. We furnish paper for some of the papers in cities the size of Milwaukee, but I am not prepared to give you a list of those papers now. If you wish it I can get it for you. That is not in my department.

Mr. STAFFORD. What is the practice in the trade of obtaining contracts for the supply of news-print paper to various newspapers in the different cities in the country?

Mr. ABELL. We are usually asked to bid upon specifications, and we usually make those quotations in writing.

Mr. STAFFORD. Is your company asked by the Chicago dailies or by the Milwaukee dailies to quote them prices for their supply of paper?

Mr. ABELL. The Chicago dailies have not asked us for any quotations for quite a number of years.

Mr. STAFFORD. My question is directed to ascertain the method of the newspapers obtaining their supply of paper, whether through jobbing houses, such as you represent, or whether from the mills.

Mr. ABELL. The largest papers, I think, get their quotations from the mills.

Mr. STAFFORD. In some lines of manufacture the manufacturers refuse to sell directly to the consumers and only through jobbing houses?

Mr. ABELL. Yes, sir.

Mr. STAFFORD. What is the practice so far as news-print paper is concerned in supplying the largest dailies in the different cities of the country, so far as you know?

Mr. ABELL. I should say that the largest dailies in the large cities buy the majority of their paper direct from the mills. You might go further and say all the Chicago dailies buy, nearly all buy, from the International.

Mr. STAFFORD. Have you any acquaintance with the practice followed by the news-print paper manufacturers in obtaining contracts for the supply of print paper of newspapers?

Mr. ABELL. No; I have not.

Mr. STAFFORD. Are you acquainted with the prices of news-print paper by rolls furnished in carload lots during the past year and in the various months?

Mr. ABELL. I do not know as I could follow the fluctuation monthly.

Mr. STAFFORD. Has there been any fluctuation in the past six months in the price of print paper in large quantities?

Mr. ABELL. Yes, sir; it is higher now than six months ago.

Mr. STAFFORD. What is the quotation to-day?

Mr. ABELL. Somewhere around 2½.

Mr. STAFFORD. How long has it been at that figure? When did the last rise take place?

Mr. ABELL. I could not give you the date. I should say within the last three months.

Mr. STAFFORD. How much of a rise took place then?

Mr. ABELL. I could not tell you that exactly.

Mr. STAFFORD. Give it as near as you can.

Mr. ABELL. I should say in the neighborhood of one-fourth cent a pound.

Mr. STAFFORD. That is 25 cents on the hundred?

Mr. ABELL. Yes, sir.

Mr. STAFFORD. So they were selling before the last rise took place at \$2.25 a hundred?

Mr. ABELL. Somewhere in that neighborhood.

Mr. STAFFORD. Was that the lowest price it has been sold for during the six months past?

Mr. ABELL. Yes, sir.

Mr. STAFFORD. When was the lowest price reached?

Mr. ABELL. I should say about a year ago.

Mr. STAFFORD. That lowest price prevailed until a few months ago?

Mr. ABELL. Yes, sir.

Mr. STAFFORD. Do you know the occasion for the increase to the present price?

Mr. ABELL. No; I do not of my own knowledge.

Mr. STAFFORD. Has your house had any difficulty in obtaining during the past six months the supply of news-print paper?

Mr. ABELL. Why, there have been times we could not get the paper as promptly as we would like to have gotten it, but most of our orders have been filled where people waited for it.

Mr. STAFFORD. In your sale of news-print paper, do you ever act as agents for the sale of the output of any mills, or are you purchasers direct and make the contracts of your individual customers?

Mr. ABELL. Our relation is only as buyer and seller, and we do not act as agent.

Mr. STAFFORD. In your dealings with news-print paper, do you purchase more from eastern mills or Wisconsin?

Mr. ABELL. We purchase more from the East than in the West.

Mr. STAFFORD. What determines the place where you purchase your supply of print paper?

Mr. ABELL. The better quality for the lowest price.

Mr. STAFFORD. Is there much difference in the quality of news-print paper as manufactured by the established mills of the country?

Mr. ABELL. We think there is. We think the quality of the spruce in certain territory in the East is better than in the West.

Mr. STAFFORD. Do your customers demand the better quality in its purchases?

Mr. ABELL. They are always looking to get the best for the price.

Mr. STAFFORD. Do they demand the better quality, or isn't there a better quality that is accepted by all newspapers?

Mr. ABELL. We find that some of our customers prefer this eastern product, having used it, find it does their work better, and occasionally a customer specifies a particular mill's make in the West, and we always aim to get him whatever he specifies.

Mr. STAFFORD. When you put your price up to \$2.50, was that price raised by all manufacturers at the same time or about the same time?

Mr. ABELL. I could not say whether it would cover the same time or not. I should say approximately the same time.

Mr. STAFFORD. By both the eastern and western manufacturers?

Mr. ABELL. Yes, sir.

Mr. STAFFORD. At what place do you purchase your news-print paper from the various mills?

Mr. ABELL. At place of manufacture, f. o. b. delivered at Chicago. We make a customer an offer f. o. b. the mill, f. o. b. Chicago or f. o. b. in his home town, according as he specifies.

Mr. STAFFORD. I am asking what your house does, whether the contract prescribes the price delivered in Chicago or price at the mill?

Mr. ABELL. I should say the contract prescribes f. o. b. for Chicago tonnage and f. o. b. the mill for direct shipment. That is my idea of it. I am not in the purchasing department, but I think that is the way.

Mr. STAFFORD. Are you acquainted with the freight rates on news-print paper from the eastern mills to Chicago and the Wisconsin mills to Chicago?

Mr. ABELL. No, I am not. We leave that entirely to our traffic department, getting those rates from the traffic department as we want to quote the customer.

Mr. STAFFORD. When you purchase a supply from the Wisconsin mills, what is the practice of your company in seeking bids from respective paper manufacturers?

Mr. ABELL. We should ask for price for direct shipment f. o. b. to Chicago.

Mr. STAFFORD. Do you seek to obtain quotations from all the mills, or only from a limited few?

Mr. ABELL. Oh, usually from the mills we have found it has been most advantageous to deal with.

Mr. STAFFORD. Have those mills been in a position to supply you with the necessary supply of news-print paper in the last six months?

Mr. ABELL. Yes, sir; they have done fairly well by us.

Mr. STAFFORD. So you write direct when you wish quotations on your news-print paper to the mill owners?

Mr. ABELL. Yes, sir.

Mr. STAFFORD. And not through any other intermediary?

Mr. ABELL. No, sir.

Mr. STAFFORD. You obtain various quotations from the various manufacturers?

Mr. ABELL. Yes, sir.

Mr. STAFFORD. There has been considerable testimony taken alleging that there has been an understanding among the manufacturers of news-print paper, but very little testimony has been taken so far as to whether there has been any understanding or combination among the manufacturers of book, ledger, or writing papers. Are you in a position to tell whether—to state as to the conditions of manufacturers of book, ledger, and writing paper?

Mr. ABELL. No, I am not.

Mr. STAFFORD. Do you know whether there has been any claim made that there was a combination or understanding in those particular lines?

Mr. ABELL. No, I do not. All I know is what I have read in the papers.

Mr. STAFFORD. Are there any special districts in the country which make a specialty of manufacturing either of those three kinds of paper?

Mr. ABELL. Yes, sir.

Mr. STAFFORD. Designate where those localities are?

Mr. ABELL. Holyoke, Mass.; in the vicinity of Kalamazoo; up on the Fox River, Wisconsin, around Appleton, Neenah, Menasha.

Mr. STAFFORD. In those places what special paper is manufactured?

Mr. ABELL. Most all of those places I mentioned manufacture fine writing papers and the cheap grade of ledgers.

Mr. STAFFORD. So the same manufacturers manufacture all three of these kinds of paper?

Mr. ABELL. Not altogether. Some mills manufacture all three of those grades. Some mills confine themselves largely to one grade.

Mr. STAFFORD. In the news-print paper manufacture, that is made by mills largely engaged in that character of manufacture?

Mr. ABELL. Yes, sir.

Mr. STAFFORD. For what length of time are you entering into contracts for newspapers for furnishing them with their paper?

Mr. ABELL. That I could not say.

Mr. STAFFORD. You are acquainted with the price being paid by the Chicago dailies at the present time, or the quotations being made by mill manufacturers to large dailies for the supply of print paper?

Mr. ABELL. I am not. I have read some of the printed testimony, I believe, of the representative of the Tribune, but it has slipped my mind now.

Mr. STAFFORD. I am seeking what is the present price.

Mr. ABELL. No; I am not.

The CHAIRMAN. These prices that you give us, Mr. Abell, as to news-print paper are for paper in rolls or in sheet?

Mr. ABELL. No; sheet paper. There is little roll paper shipped out of the house, but the difference in price as between rolls and sheet is very slight.

The CHAIRMAN. Is sheet paper a trifle higher?

Mr. ABELL. A trifle higher than roll paper.

The CHAIRMAN. You spoke of an increase in the last three months and that the lowest price was about a year ago. Aren't you a little mistaken about the dates? Do you buy paper?

Mr. ABELL. I don't buy paper. Those are based on my impression from having sold paper.

The CHAIRMAN. A year ago was when they had their great scare?

Mr. ABELL. I could not give you the exact dates without looking it up. My impression is from having sold the paper, knowing the market was up and down. I have nothing to do with the purchasing department.

The CHAIRMAN. I assume from what we learned elsewhere that there was a little falling off in the price of paper during the summer. Paper sold in New York at auction for less than 2 cents a pound a short time ago.

Mr. ABELL. I know when the drought came and had a tendency to put up the price of paper again, the mills shut down over the country and the International had a strike.

The CHAIRMAN. But it was the low price of paper particularly I wanted.

Mr. ABELL. Yes, sir.

The CHAIRMAN. I want you specially to look up that fact.

Mr. ABELL. I do not think the conditions of prices resulting from the auction sale should be taken as the market price.

The CHAIRMAN. No, that is true; but the condition of the auction sale might have a tendency to show the tendency of the paper manufacturers in selling paper. I think at the time this investigation commenced they were pretty stiff on paper at about \$2.50. It went off, as we know, quite decidedly from that, from some of the paper manufacturers. Just what they are getting now we can't say except what the record shows.

Mr. ABELL. Yes, sir.

The CHAIRMAN. The statement furnished by Mr. Abell is to be inserted in the record and is as follows:

Prices of paper per pound in certain years.

Year.	News-print paper.	Sized and super-calendered book paper.	St. Charles writing paper.
1879.....	\$0.07½	\$0.12	\$0.15
1883.....	.06½	.09	.12
1884.....	.05	.08	.11
1885.....	.04½	.07½	.10½
1887.....	.04½	.07	.09½
1893.....	.03	.04½	.08
1896.....	.02½	.04½	.07½
1897.....	.02	.04½	.07½
1898.....	.02½	.03½	.07½
1899.....	.02½	.03½	.07
1900.....	.03	.04½	.08
1901.....	.02½	.03½	.07½
1902.....	.02½	.04	.07½
1903.....	.02½	.04½	.07½
1904.....	.02½	.04½	.07½
1905.....	.02½	.04	.07½
1906.....	.026	.04½	.07½
1907.....	.029	.04½	.08
1908.....	.0275	.04½	.08

On November 20 and 21, 1908, the committee were at Johnsonburg, Pa., and inspected the mills of the New York and Pennsylvania Company producing fiber by both the soda and sulphur process. At this mill hemlock slabs and edgings are largely used in the production of sulphite and various hard woods such as maple, beech, birch, cherry, gum, elm, willow, basswood, cucumber tree, tulip tree, and quaking aspen are used in the soda process. The committee made a very careful inspection of the wood used and the processes of production in the manufacture of soda fiber. On November 21 the committee went into the extensive forests in the vicinity of Johnsonburg, owned by the New York and Pennsylvania Company, examined the methods of lumbering adopted, including the saving for pulp wood of those portions of the trees cut for saw logs, such as tops, etc., as were formerly wasted. The committee also examined the character of the forests in which no cutting of trees has ever been done, the forests in which the larger trees were being cut leaving the smaller trees standing, and pure second-growth forest where the entire original forest had been cut off some years ago. The forest conservation methods adopted by this company, together

with the methods adopted for profitable use in manufacture of great quantities of stuff that was formerly refuse, such as slabs, edgings, old butts, old fallen logs, etc., are worthy of most careful study and are a great credit to the company.

In connection with this visit to Johnsonburg, the committee took the following testimony:

STATEMENT OF E. L. MYERS, OF JOHNSONBURG.

(The witness was sworn and examined by the chairman.)

The CHAIRMAN. Mr. Myers, will you give us your full name?

Mr. MYERS. Edward Lyman Myers.

The CHAIRMAN. Are you connected with the New York and Pennsylvania Company—Clarion Mills—in Johnsonburg?

Mr. MYERS. Yes, sir.

The CHAIRMAN. What position do you hold with this company?

Mr. MYERS. Position of purchasing agent. My duties are looking after our timber lands and our supply of pulp wood.

The CHAIRMAN. Are you familiar with the various lands and their operations?

Mr. MYERS. Yes, sir.

The CHAIRMAN. About how much land does your company own in this locality?

Mr. MYERS. About 116,000 or 117,000 acres.

The CHAIRMAN. We would be glad to have you, in your own way, go ahead and tell us as to your branch of the business.

Mr. MYERS. About the first thing we do is to ascertain our requirements of pulp wood for the ensuing year, and we then——

The CHAIRMAN. About how much is this?

Mr. MYERS. About 60,000 to 65,000 cords per year of hard woods and hemlock body wood for our soda mills, and about 30,000 to 35,000 cords per year of hemlock slabs and edgings for our sulphite mill. We then ascertain approximately the amount of pulp wood we will receive from parties other than our own lands; also the amount that we will cut on lands where we purchase the stumpage. We then go through our property and ascertain the sections containing the timber that has reached its maturity and is deteriorating on account of its age. We then lay out such portion of the territory estimated to cut the required number of cords and complete our arrangements to have the timber cut and otherwise prepared into pulp wood. In selecting this territory we, of course, give the fire risk due consideration also. We then operate with great care so as to avoid damaging young timber, also to prevent our cutters from cutting same into pulp wood. On our lands we do not cut trees under 6 inches in diameter. We, however, work all of the tops and limbs into pulp wood as small as 1½ inches in diameter. In some sections we do not cut the young trees as close as 6 inches in diameter. This depends entirely upon the soil and how rapidly the timber is growing, and in some cases where the young timber is growing fast we do not enter this portion to cut any large trees, as we believe we do more damage to the young trees than if we allow the old large trees to rot. We operate our properties with a view of reforesting. In the territory where we follow the lumbermen we work into pulp wood all of the tops, limbs, etc., the same as on our own property, but sometimes we

take the young standing timber smaller than 6 inches, because we find the lumbermen have cut down hard wood for camps, slides, railroad ties, etc., and have damaged the timber considerably in felling the trees. The conditions of the timber, locality, etc., govern our method of operating.

The CHAIRMAN. About how much of your 117,000 acres is in forests now?

Mr. MYERS. I think about one-half, about 50,000 or 60,000 acres.

The CHAIRMAN. What is the balance of the land?

Mr. MYERS. Mostly second growth, young timber. We have some barren land with nothing on it.

The CHAIRMAN. Is the half you refer to as being in forests the original timber?

Mr. MYERS. Yes, sir.

The CHAIRMAN. Is there any timber around here that has never been cut over?

Mr. MYERS. Yes, sir. None of the hard woods on the 50,000 acres, or one-half of our land, has been cut over; the virgin hard-wood timber is on it.

The CHAIRMAN. It is all second growth?

Mr. MYERS. No, sir. It is virgin.

The CHAIRMAN. What do you mean by first and second growth?

Mr. MYERS. By first growth I mean the virgin timber. By second growth I mean such trees as we are reforesting.

The CHAIRMAN. Is there any virgin timber in this locality?

Mr. MYERS. Yes, sir.

The CHAIRMAN. I understood you to say there was no virgin timber. What kind of wood is the virgin?

Mr. MYERS. Maple, beech, birch, hemlock, and elm.

The CHAIRMAN. How large?

Mr. MYERS. From 20 to 48 inches in diameter. We have some timber larger than that.

The CHAIRMAN. How tall?

Mr. MYERS. It is from 30 to 60 feet up to the branches.

The CHAIRMAN. How old is it?

Mr. MYERS. I suppose 75 years. I have counted rings on some of the trees which showed them to be about that old.

The CHAIRMAN. Do you find any 36-inch diameter timber around here that is only 75 years old?

Mr. MYERS. Yes, sir.

The CHAIRMAN. I would like to see it. What sort is it?

Mr. MYERS. Poplar and elm.

The CHAIRMAN. You state poplar. What do you mean by poplar?

Mr. MYERS. White poplar, such as grows in our section.

The CHAIRMAN. Do you mean aspen?

Mr. MYERS. No; white poplar.

The CHAIRMAN. Do you know that there is no such thing as poplar? It is all cottonwood.

Mr. MYERS. It may be of the cottonwood family, but the poplar—such as is familiar in this section—is not the same as the cottonwood in the West.

The CHAIRMAN. Do you use any of the large saw logs for pulp wood?

Mr. MYERS. We do not use many saw logs—only ones unfit for lumber.

The CHAIRMAN. Do you use any 36-inch maple?

Mr. MYERS. Yes, sir.

The CHAIRMAN. You do not have lumbermen cut it off first?

Mr. MYERS. In some cases, where we follow the lumbermen.

The CHAIRMAN. That is what I wanted to get at. What do you mean by following the lumbermen? Do you lumber your forests first?

Mr. MYERS. Yes, sir; through the section where the hemlock is the heaviest growth.

Mr. PAINE. Mr. Mann refers to our own tracts. We operate these ourselves.

The CHAIRMAN. Do you cut any saw logs on your own lands?

Mr. MYERS. We cut some of the best timber into saw logs.

The CHAIRMAN. You take what would be good for saw logs out, and the rest you cut down for pulp wood, down to a certain limit; so you lumber the land first.

Mr. MYERS. Yes, sir; but not all of it. Only in sections where the timber is good. Of course we can not lumber unless there are saw logs there.

The CHAIRMAN. What will your best forests average? The number of board feet per acre?

Mr. MYERS. I do not know exactly. I have never estimated the number of board feet. We have acres that will cut 50 cords of pulp wood.

The CHAIRMAN. You do not estimate your forests for saw logs?

Mr. MYERS. No, sir.

The CHAIRMAN. Have you any estimate of the saw log timber that you have?

Mr. MYERS. No, sir.

The CHAIRMAN. You say one-half of your holdings—that is 50,000 acres or more—is virgin timber. Is that large timber?

Mr. MYERS. Yes, sir. It will run from 8 inches up.

The CHAIRMAN. That is matured timber?

Mr. MYERS. Yes, sir.

The CHAIRMAN. What are you doing with that, using exclusively for pulp wood?

Mr. MYERS. No, sir. We cut some logs.

The CHAIRMAN. How do you operate it?

Mr. MYERS. In the winter we go over a certain section of our land, and cut out the sawing timber. In the spring we go through and cut the next size timber; also the large trees that do not make sawing timber. We never cut any logs under 15 inches in diameter. The following fall we go through and cut into pulp wood the tops and limbs. We do this owing to the fact that the sun will crack open the bark, making it easy to peel and allowing us to get the bark off much cleaner.

The CHAIRMAN. You take out the saw logs separately?

Mr. MYERS. Yes, sir.

The CHAIRMAN. What is done with the saw logs?

Mr. MYERS. We supply a butter-dish factory here, also a sawmill we own where we cut lumber.

The CHAIRMAN. The company owns a sawmill where you can convert saw logs into lumber?

Mr. MYERS. Yes, sir.

The CHAIRMAN. Then, following that, you cut the balance down to a certain limit, which you say is about 6 inches for pulp wood?

Mr. MYERS. Yes, sir.

The CHAIRMAN. What do you cut for pulp wood? What kind of timber?

Mr. MYERS. Beech, birch, maple, cherry, bass or linn, cucumber, whitewood, elm, quakenasp, butternut, buttonwood, and walnut.

The CHAIRMAN. I understood this afternoon, walking around the plant with Mr. Paine and the rest of you, that you cut 23 different kinds of hard wood. I wish, if you could, you would give me a list of these.

Mr. MYERS. I can probably name them, but I do not think Mr. Paine told you 23 kinds. We use all hard woods with the exception of oak and chestnut.

The CHAIRMAN. That covers it. You practically use all the hard-wood trees that grow in this locality for pulp wood, except oak and chestnut. That includes all kinds of oak?

Mr. MYERS. Yes, sir.

The CHAIRMAN. Have you tried to use oak? Why do they throw the oak out?

Mr. MYERS. I understand it contains tannic acid.

The CHAIRMAN. It does not contain any more than hemlock.

Mr. MYERS. Yes, sir; it does. Hemlock contains tannic acid in the bark, and with the oak the tannic acid is also in the wood.

The CHAIRMAN. That is the reason why they throw out chestnut and oak?

Mr. MYERS. Yes, sir; the way I understand it. We use the woods embodied in the specifications of pulp wood.

(At this point a copy of the specifications was handed to the chairman. The paper reads as follows:)

SPECIFICATIONS OF PULP WOOD—NEW YORK AND PENNSYLVANIA COMPANY.

Kinds of woods used at our mills.—We use the following kinds of wood at our mills: Maple, beech, birch, cherry, gum, buttonwood, butternut, elm, willow, bass or linn, cucumber, poplar, and quaking-aspen.

Quality of wood.—All kinds of wood must be sound, outside and inside bark removed, and wood kept clean.

How wood must be prepared.—All wood must be cut full 5 feet (60 inches) from end to end, sawed; no sticks to be split that are under 10 inches in diameter; sticks from 10 to 14 inches split once only; sticks over 14 inches may be quartered. The outside and inside bark must be thoroughly peeled off.

Wood should be peeled during the season when the bark slips—from the middle of April until the middle of September. Limbs must be trimmed close. Wood must be free from large and black knots. Straight limbs over 4 inches in diameter will be accepted. Round wood showing rotten and defective hearts must be split open and all such parts removed from same. Wood must be straight.

We do not purchase unpeeled wood.

Wood that will not be accepted.—We do not use white pine, ash, chestnut, oak, or hickory, nor wood containing burned or charred sticks, nor wood which is bark fallen or sap rotten, nor sticks containing rotten or black hearts and large black knots, nor wood under 4 inches in diameter at small end; nor will we accept unsplit crotches or crooked wood.

How to load and ship.—Wood must be seasoned before shipping. Consign to New York and Pennsylvania Company, Johnsonburg, Pa. When loading car, wood must be laid straight and tightly ranked. This also applies to wood delivered in our yards by teams. Shippers must promptly notify us date of shipment, number and initial of car; height, width, and number of ranks of wood contained in car.

Measurement.—All wood is subject to our inspection and measurement at our mills, based on cords of 160 cubic feet. When these specifications are complied with, we are very particular to allow full measurement. All wood received by us is scaled by experienced and competent men. Each rank in car is carefully inspected and scaled separately, and we always measure full height, width, and length of wood.

Weights of wood, cord of 160 cubic feet.—All woods when green will weigh about 2½ tons per cord of 160 cubic feet. When seasoned, hard woods weigh about 1½ tons per cord of 160 cubic feet; soft woods weigh about 1¼ tons per cord of 160 cubic feet.

Payments.—Payments will be made spot cash, less 2 per cent, upon arrival of wood and freight bills.

Caution.—Please note that these specifications must be strictly complied with.

All wood must be cut 60 inches long—full 5 feet.

Wood cutters sometimes cut wood 2, 3, and 4 inches short. Please take notice that all wood cut from 4 feet 7 inches to 4 feet 11 inches will be measured as 4½-foot wood. All wood cut from 4 feet 2 inches to 4 feet 6 inches will be measured as 4-foot wood.

Contents of all wood cars are carefully inspected when received at our mills as to loading, splitting, length, peeling, rotten, charred, and burned wood. Not one stick is unloaded without being inspected. Wood 4 feet long and under must not be shipped unless by special arrangements.

E. L. MYERS,

Purchasing and Freight Agent, Johnsonburg, Pa.

For New York and Pennsylvania Company, Clarion Mills. Issued December 1, 1904. Superseding all specifications previously issued.

We also use hemlock slab wood and hemlock body wood at Johnsonburg. Write for specifications for these woods.

Jack pine is used at Lock Haven Mills. Address all inquiries pertaining to same to New York and Pennsylvania Company, Lock Haven, Pa.

The CHAIRMAN. You buy wood in accordance with these specifications in the main?

Mr. MYERS. Yes, sir. Of course we make certain allowances, but buy in accordance with same, in the main.

The CHAIRMAN. How much of your own wood have you cut in the past year? Can you estimate it?

Mr. MYERS. That is, you mean from the first of the year?

The CHAIRMAN. Yes. Or in other words what proportion of the whole have you cut on your own land?

Mr. MYERS. We have cut probably 15,000 cords on our own lands this year.

The CHAIRMAN. If you have so much matured timber, that is virgin timber, why can't you cut more?

Mr. MYERS. This year we became overstocked with pulpwood, owing to our mills not running full. Furthermore, we arranged for a large amount of stumpage from the Emporium Lumber Company, on the Goodyear Lumber Company's lands at Medix Run. It is necessary for us to remove this wood as fast as possible on account of the Goodyear's expecting to take up their railroad.

Mr. RYAN. I have been informed that they use the wood down into the roots.

Mr. MYERS. Not that I know of. When we cut our timber we cut just as close to the ground as possible; within 3 to 10 inches of the ground; that is, when we are cutting in the spring or summer, but in the winter we can not cut down so low on account of the snow.

The CHAIRMAN. Where you buy this stumpage, is that stumpage for virgin forests or stumpage for saw logs?

Mr. MYERS. Saw logs have been taken out.

The CHAIRMAN. What basis do you buy it on? So much per cord, or upon an estimate?

Mr. MYERS. Sometimes we buy it on an estimate and sometimes so much per cord.

The CHAIRMAN. Do you have men go over the land and estimate?

Mr. MYERS. Yes, sir.

The CHAIRMAN. What do you call them?

Mr. MYERS. Pulp-wood estimators.

The CHAIRMAN. On the stumpage land do you strip the land entirely?

Mr. MYERS. We do not very often cut under 6 inches. We work the tops and limbs as close as 1½ to 2 inches.

The CHAIRMAN. Why do you not cut under 6 inches on this stumpage land?

Mr. MYERS. Because we figure on reforesting, and it is our desire to have the lands in our section again reproduce themselves with timber. This we consider is for our best interests.

The CHAIRMAN. What do you pay for stumpage?

Mr. MYERS. We pay different prices. About \$1 per cord. That will all depend on the locality and what it costs us to get it out.

The CHAIRMAN. Does it depend any on the kinds of trees?

Mr. MYERS. No, sir.

The CHAIRMAN. Size or variety?

Mr. MYERS. No, not particularly; but we make some distinction concerning hemlock. This is on account of our only taking the butts, breaks, tops, and limbs after the lumbermen have removed all of the suitable sawing timber.

The CHAIRMAN. Which is the more valuable for making fiber, hemlock per cord or maple per cord?

Mr. MYERS. I do not believe I can answer that. I am instructed to furnish so much hard wood and hemlock. We divide our woods into hard wood and hemlock. That is the only distinction we make.

The CHAIRMAN. Do you take hard wood as it comes, regardless of any particular kind?

Mr. MYERS. Yes, sir.

The CHAIRMAN. By that you mean if there is a clump of maple or beech trees, etc., you go right through and cut?

Mr. MYERS. Yes, sir.

The CHAIRMAN. You do not find any full forests of beech of any size?

Mr. MYERS. We have forests that will probably run 80 per cent beech.

The CHAIRMAN. How large territory?

Mr. MYERS. We have one property of about 1,200 acres.

The CHAIRMAN. Has that ever been cut?

Mr. MYERS. No, sir.

The CHAIRMAN. If you were cutting that before following some lumberman's operation, would you run pulp wood into the mill 80 per cent beech for soda fiber?

Mr. MYERS. Yes, sir.

The CHAIRMAN. It does not require to be mixed in any way?

Mr. MYERS. No, sir.

The CHAIRMAN. Any kind is just as good?

Mr. MYERS. Yes, sir.

The CHAIRMAN. What do you call soft woods?

Mr. MYERS. Bass, cucumber, quakenasp, aspen, whitewood, and poplar.

The CHAIRMAN. You do not use any jack pine?

Mr. MYERS. No, sir. Not at Johnsonburg.

The CHAIRMAN. Is there much spruce in this locality?

Mr. MYERS. No spruce at all.

The CHAIRMAN. There is much hemlock?

Mr. MYERS. Yes, sir.

The CHAIRMAN. Is hemlock the prevailing tree?

Mr. MYERS. Yes, sir; I think it is. This is a heavy hemlock section.

The CHAIRMAN. What would probably come next?

Mr. MYERS. Maple.

The CHAIRMAN. That is hard maple?

Mr. MYERS. Yes, sir.

The CHAIRMAN. Is there much soft maple?

Mr. MYERS. No; not very much.

The CHAIRMAN. There is a good deal of beech here?

Mr. MYERS. Yes, sir.

The CHAIRMAN. Is there very much birch, and what kind?

Mr. MYERS. There is not very much black birch, but there is yellow birch, as we call it. Some sections call it white.

The CHAIRMAN. There is certainly a great distinction between them; one has a white bark and the other yellow.

Mr. MYERS. The bark is practically the same; you can not tell the difference.

Mr. PAINE. The white birch we get in the Adirondacks is entirely different from what we call white birch here. The Adirondack white birch has a perfectly white bark, whereas the yellow birch has a yellowish bark.

The CHAIRMAN. Do you use any cherry?

Mr. MYERS. Yes, sir.

The CHAIRMAN. Do you use bird cherry?

Mr. MYERS. Yes, sir. We call it fire cherry.

The CHAIRMAN. What gum tree do you use, sour or sweet? Is there any sweet gum?

Mr. MYERS. No, sir; not that I know of.

The CHAIRMAN. Do you use butternut?

Mr. MYERS. Yes, sir.

The CHAIRMAN. Have you any walnut?

Mr. MYERS. An occasional tree.

The CHAIRMAN. Do you use walnut?

Mr. MYERS. We use it when it can be obtained.

The CHAIRMAN. I did not notice any ash; is there any here?

Mr. MYERS. Yes, sir; there is some through this section. We use the swamp or black ash, but not the white ash.

The CHAIRMAN. Do you use willow or basswood?

Mr. MYERS. Yes, sir. Also poplar.

The CHAIRMAN. You mean cottonwood?

Mr. MYERS. There is a difference between cottonwood and poplar.

The CHAIRMAN. Do you mean by poplar, white poplar?

Mr. MYERS. Yes, sir.

The CHAIRMAN. The real poplar, which is cottonwood, includes a number of different varieties, but that which usually comes up every

place after being cut over is called aspen. You do not use white pine?

Mr. MYERS. We have used a small amount of white pine.

Mr. STUTZ. We prefer not to use it on account of the yield.

The CHAIRMAN. Why?

Mr. PAINE. The number of fibers per cubic inch is small, and the fibers are loosely put together; by the soda process it does not pay. We take very little at this mill. We get some at Lock Haven, mixed in with jack pine, probably 98 cords of jack pine to 2 cords of white pine.

The CHAIRMAN. What do you use jack pine for?

Mr. PAINE. For long fiber pulp, cooked by the soda process.

The CHAIRMAN. Does it make good pulp?

Mr. PAINE. Yes, sir.

The CHAIRMAN. Is it expensive?

Mr. PAINE. Yes, sir.

The CHAIRMAN. Is that the reason it is not generally used?

Mr. PAINE. Yes, sir. It requires a special process and a mill especially adapted to use it. It could not be used in a sulphite mill at all. It can not be cooked by the sulphite process.

The CHAIRMAN. In some places where we have been we have found they used jack pine for ground wood in making box boards.

Mr. PAINE. You can make an inferior pulp with it, but unfit for white paper.

The CHAIRMAN. Why don't you use ash?

Mr. PAINE. Ash is a very hard wood to treat and has very short fiber. We probably do get many sticks mixed in with our hard wood, but we try to keep it out. It is a hard wood to treat and makes the fiber stand up on end, causing fuzzy paper.

The CHAIRMAN. What is the matter with hickory?

Mr. PAINE. It is a very hard wood to treat. It is almost as hard to treat as ironwood.

The CHAIRMAN. Do you throw out the ironwood.

Mr. PAINE. We do if we know it.

The CHAIRMAN. Is there much ironwood through Pennsylvania?

Mr. MYERS. Scarcely any. I do not suppose I have run across over 40 or 50 trees in my experience.

The CHAIRMAN. What are you doing with the other half of your holdings which are not virgin forests?

Mr. MYERS. We are simply holding it and protecting the young timber.

The CHAIRMAN. Are you reforesting it yourselves?

Mr. MYERS. We are reforesting it from our point of view. We are not planting because we feel that more young trees will spring up each year than an army of men can plant. Our chief method of reforesting is to prevent the forest fires from burning over it. The forest commissioners have tried to interest us in planting, but we feel, if the territory is protected from forest fires, we will have sufficient timber to supply us indefinitely.

Mr. RYAN. What means do you employ to protect forests from fires?

Mr. MYERS. We make fire lines, by allowing a certain amount of green timber to stand around the edge of our property close to the

railroads or where there is danger of fires coming in on us. During the dry season, which is spring and summer, we have men patrol the property. We also have our railroads equipped with tank cars to use in case of emergencies. These tank cars are equipped with pumps and 300 to 500 feet of 2½-inch fire hose.

Mr. RYAN. What do you attribute the principal causes of forest fires to?

Mr. MYERS. I believe 90 per cent of the forest fires originate from railroads. During the dry season we do not operate our railroads at all. We close them down. We always trace a fire to its origin, and in ninety cases out of a hundred they have come from railroads.

The CHAIRMAN. These forests which you have preserved will furnish you an available supply for your future. Do you mean your own holdings or forests in your locality?

Mr. MYERS. I think we have almost lands enough of our own to furnish our future supply. I have advised our company to purchase young timber in place of matured timber.

The CHAIRMAN. But half of your own lands are now virgin forests, and yet this year you have taken off not over 20 per cent of your supply?

Mr. MYERS. Yes, sir.

Mr. RYAN. Is that 65,000 cords all for the mills in Johnsonburg?

Mr. MYERS. Yes, sir.

Mr. RYAN. Is this just one mill?

Mr. MYERS. No; you understand that I attend to the supply of pulp wood for the Highland mill in addition to the Clarion mills.

The CHAIRMAN. Your supply covers the two mills?

Mr. MYERS. Yes, sir.

Mr. RYAN. What does your wood cost you per cord delivered here from your own lands?

Mr. MYERS. Our wood cost us about \$6.25 per cord delivered here ready for the chipper.

The CHAIRMAN. That includes hemlock and hard wood?

Mr. MYERS. It does not include hemlock slabs and edgings. The hemlock slabs and edgings, when the lath stock is not taken out, costs us about \$5.35 per cord at the mill, ready for the chipper.

The CHAIRMAN. When you compute the average cost of the wood here, do you mean the wood you buy stumpage, or the wood you get on your own lands?

Mr. MYERS. Average of all hard woods.

The CHAIRMAN. Upon what basis do you figure the cost of the wood on your own lands?

Mr. MYERS. We add to the purchase price the expenses, such as taxes, cost of looking after the property, etc., and ascertain the cost per cord, based on the estimated number of cords of pulp-wood on the property.

The CHAIRMAN. How do you arrive at the cost of any particular tract?

Mr. MYERS. When making the purchases we give the tract a number, also a name, and on our books we keep each tract separately. We add to the purchase price all money expended for taxes, etc.

The CHAIRMAN. Have you any idea what the average cost of your virgin forest is?

Mr. MYERS. That will depend on the number of years we have to hold it.

The CHAIRMAN. Have you any idea as to the present average cost of the virgin forests per acre, or any other quantity basis?

Mr. MYERS. About \$45 per acre.

The CHAIRMAN. How much would that be per cord?

Mr. MYERS. About \$1.

The CHAIRMAN. What do you figure the average cost of your forests of second growth is?

Mr. MYERS. About \$5 per acre.

The CHAIRMAN. You must have purchased that land pretty cheap?

Mr. MYERS. We figure that it will be necessary to hold it a long time.

The CHAIRMAN. Does this land around here have anything on it now, or is it practically barren?

Mr. MYERS. It is practically barren.

The CHAIRMAN. What is the land worth?

Mr. MYERS. I suppose from \$2 to \$4 per acre.

The CHAIRMAN. It is rocky ground?

Mr. MYERS. Yes, sir.

The CHAIRMAN. Can it be used for any other purpose than raising trees?

Mr. MYERS. No, sir; I do not think it can.

The CHAIRMAN. Have any of the tracts that lie along the railroads been used for any other purposes?

Mr. MYERS. No, sir.

The CHAIRMAN. They do not seem to be reproducing.

Mr. MYERS. This is owing to fires originating from railroads. The lands adjacent to the railroads burn over every year or so.

The CHAIRMAN. Do you think that this land that lies near the railroad, if you keep the fires out, would produce forests without planting, and how soon?

Mr. MYERS. It is my opinion that this land will not produce forests for a great length of time. The soil has been burned so hard that it is practically worthless and impossible for the young trees to get a start. I believe, however, that in time trees will grow up if protected from fires.

The CHAIRMAN. What kind of timber?

Mr. MYERS. In some sections the second-growth timber will be aspen and bass, and in others it will be beech, maple, and hemlock.

The CHAIRMAN. Of course, beech seed does not go very far unless it flows downstream. That is, it does not fly very far. Maple seed will fly some distance, but not a great distance.

Mr. MYERS. No, sir.

The CHAIRMAN. In order to reforest a section that is entirely void of trees you must have some kind of seed that is either carried by the wind or in some other manner to the ground. Now, what would be the tree that would most likely reproduce itself around here?

Mr. MYERS. It would be either a maple, basswood, aspen, or poplar, as it is called in this section.

The CHAIRMAN. But the basswood is not a poplar. You do not know of any trees having started without the aid of seed?

Mr. MYERS. No, sir; certainly not.

Mr. RYAN. In that section, where you buy stumpage, and you leave small trees, you feel reasonably sure they will be protected against fire?

Mr. MYERS. Yes; I do in some sections, because back from the trunk line railroads the lumbermen take out their railroads as soon as the timber has been removed, which eliminates the danger from forest fires.

Mr. RYAN. Is that country good for agriculture?

Mr. MYERS. I should not think so.

The CHAIRMAN. How much of your land which you now have has second-growth timber on it?

Mr. MYERS. I think about 40,000 acres. Do you mean how much of it the timber has not started on at all?

The CHAIRMAN. That is what I wanted to get at.

Mr. MYERS. I should say 10,000 or 15,000 acres has no timber on it.

The CHAIRMAN. And the rest is timber, how much and how old?

Mr. MYERS. The rest is timber from 2 inches in diameter up to 12 inches in diameter.

The CHAIRMAN. What is the prevailing variety? Hemlock?

Mr. MYERS. Yes, sir; considerable hemlock, maple, beech, basswood, and poplar.

The CHAIRMAN. Are there any evergreen trees other than hemlock?

Mr. MYERS. Some pine.

The CHAIRMAN. Jack pine?

Mr. MYERS. White pine.

The CHAIRMAN. How old do you estimate that second growth to be? Or, rather, how long since saw logs were cut out?

Mr. MYERS. Seven years to nineteen years.

The CHAIRMAN. Only seven years? Is this virgin forest since the company came here, where you have this second-growth timber?

Mr. MYERS. It was virgin timber when we came here.

The CHAIRMAN. That is timber that you have cut over?

Mr. MYERS. Yes, sir; but we have not cut all ourselves.

The CHAIRMAN. Or since others have cut over?

Mr. MYERS. Yes, sir.

The CHAIRMAN. Where saw logs were taken out, and pulp wood?

Mr. MYERS. Saw logs have been taken out, and some pulp wood.

The CHAIRMAN. Then the smaller stuff is allowed to grow?

Mr. MYERS. Yes, sir.

The CHAIRMAN. Has fire been through it?

Mr. MYERS. A portion of it fire has been through, but the largest percentage we have been able to keep the fire out.

Mr. RYAN. Have you second-growth hemlock 12 inches in diameter?

Mr. MYERS. Yes, sir.

The CHAIRMAN. By second growth, he means where saw logs were cut out.

Mr. RYAN. By some one prior to you?

Mr. MYERS. Yes, sir; we have second-growth trees which have grown 12 inches since the land was cut over.

The CHAIRMAN. Since when?

Mr. MYERS. Since being cut over.

The CHAIRMAN. When?

Mr. MYERS. I can not tell.

Mr. RYAN. How long have you been cutting on your lands?

Mr. MYERS. I can not say exactly. About seven years .

Mr. RYAN. The lands you have been cutting seven years on, what is the size of the second growth?

Mr. MYERS. We have timber all the way from 2 inches up to 12 inches in diameter.

Mr. RYAN. When you did cut, you cut to about 8 inches?

Mr. MYERS. In some sections we cut 8 inches, some to about 6 inches; we seldom cut under 6 inches.

The CHAIRMAN. Why do you make this distinction, cutting some 8 inches and others 6 inches?

Mr. MYERS. The timber seems to be more thrifty in some places than in others. It grows faster.

The CHAIRMAN. I do not understand.

Mr. MYERS. Timber will grow faster in some sections than in others because the soil seems to be better adapted for the class of timber that is growing.

The CHAIRMAN. Why does that make any difference in the diameter of the trees that you leave?

Mr. MYERS. We figure that a tree 10 inches grows very valuable in ten years.

The CHAIRMAN. You say you cut in some places down to 8 inches and in some 6 inches. Why do you cut 8 inches in one place and 6 inches in another?

Mr. MYERS. We cut 8 inches in some places and 6 inches in others because the trees grow faster on account of the difference in the soil.

The CHAIRMAN. How fast do you estimate a tree will grow where you only cut to 8 inches? Any kind of a tree?

Mr. MYERS. I figure, according to our method of operating, that timber will grow about one-half cord per acre per year.

Mr. RYAN. That would be \$2.50 additional, and you take the chances of fire?

Mr. MYERS. No, sir.

The CHAIRMAN. The stumpage is worth how much—about \$1?

Mr. MYERS. Yes, sir.

The CHAIRMAN. So that would be an addition of 50 cents per cord, and you take the chance of fire?

Mr. MYERS. No, sir; about \$1.50 addition.

The CHAIRMAN. How rapidly do you think these trees grow? You spoke about 12-inch hemlock—how old do you estimate that to be?

Mr. MYERS. That I do not think I can answer, because I have not counted the rings on them.

The CHAIRMAN. It does seem to us a remarkable fact that although we have examined a great many foresters, who are interested in the reproduction of forests, we have not found anyone who has taken the trouble to spend fifteen minutes to examine the rings to see how old the trees are. Now will you do us this favor? On some of your average trees, under normal conditions, cut us some disks off the logs, so that we will be able to ascertain how old they are, of different size trees?

Mr. MYERS. Yes, sir.

The CHAIRMAN. This information to be published for your and others' benefit.

Mr. MYERS. Good.

Mr. PAINE. If we have 115,000 acres, and figure on a growth of one-half cord per acre per year, that would be a growth per year of 57,000 cords. That amounts to something. But, I think Mr. Myers has rather underestimated than overestimated.

The CHAIRMAN. I am inclined to think that he has overestimated.

Mr. MYERS. I am certain I have not overestimated.

The CHAIRMAN. Yet, you have never examined the trees?

Mr. MYERS. I have examined different trees; that is, I have counted the rings when we have cut down a tree to see how old it was and the size of it.

The CHAIRMAN. How old?

Mr. MYERS. I have counted 74 rings on some trees.

The CHAIRMAN. What was the size, have you any record?

Mr. MYERS. No, sir.

Mr. STAFFORD. What is the inducement of the owners of this stumpage land to retain it? Merely for the benefit of the mills in this locality?

Mr. MYERS. I do not think there is any benefit for them to retain it. They probably retain the land for mineral rights, etc.

The CHAIRMAN. Is any land in this section, that is cut over, thrown upon the county by the failure of paying taxes?

Mr. MYERS. I do not know of any such land through this section.

The CHAIRMAN. To what extent are you acquainted with the forests through this portion of the State?

Mr. MYERS. I should say through Warren, Kane, Elk, Jefferson, Clinton, Center, and a number of other counties.

The CHAIRMAN. In this section of the country do others than your own company engage in reforestation?

Mr. MYERS. Yes, sir, I think so. I have talked to a number of lumbermen who claim they are preserving the forests.

Mr. STAFFORD. Has the State done anything to set aside lands?

Mr. MYERS. Yes, sir. Through Cameron, Clinton, Lycoming, Clearfield, and Center they have large holdings.

Mr. STAFFORD. What method is being followed by the State on these lands?

Mr. MYERS. They simply purchase the lands, which are put in charge of forest commissioners, who divide the lands into districts and place each district in charge of an inspector.

Mr. STAFFORD. Is there any difference in taxation on the land which is being used for reforestation over that not so used?

Mr. MYERS. Yes, sir.

Mr. STAFFORD. What benefit is given by the State to owners of lands used for reforestation?

Mr. MYERS. The State allows no benefit whatever, but the county does make a difference in the assessed valuation. As an illustration, on solid hemlock timber lands through this section the assessed valuation is about \$100 per acre. Hard-wood lands are assessed at from \$10 to \$20 per acre. The second growth and barren lands are assessed at from \$2 to \$6 per acre.

Mr. STAFFORD. What impartial advantage does the State give in a way of relieving timber lands from taxation when used for reforestation?

Mr. MYERS. The State does not give any advantage whatever. They term the lands such as we are reproducing "stripped lands," and

the assessed valuation is different. On the lands where the hard wood is light, and after hemlock is taken off, the valuation would be reduced to about \$10 to \$20 per acre, and then after the hard wood is taken off the valuation is further reduced to \$2 to \$5 per acre.

Mr. STAFFORD. Would owners of these stripped lands find it to their business advantage to retain them for a possible growth in the future, rather than to sacrifice them by declining to pay taxes?

Mr. MYERS. Some owners do and some do not. We hold our lands with a view of reproducing them.

Mr. STAFFORD. I am directing your attention to the owners of stripped lands as to what their policy is.

Mr. MYERS. The policy of some is to pay the taxes. The policy of some is to let the land go to tax sale, but the county always finds willing buyers, and they are very seldom compelled to take over any amount for nonpayment of taxes.

Mr. STAFFORD. So that individual lumbermen generally are not in any way engaged in the development of lands for reforestation purposes; only private owners of timber lands, like yourselves and other paper manufacturers?

Mr. MYERS. As far as I know. Of course, individuals will become more interested in the reproducing of forests each year.

Mr. STAFFORD. What is the State doing as far as reforestation goes? Have they forest reserves?

Mr. MYERS. They have a forest reserve through central Pennsylvania.

Mr. STAFFORD. On the Allegheny Ridge?

Mr. MYERS. Yes, sir.

Mr. STAFFORD. How many acres does this comprise?

Mr. MYERS. I can not state positively, but I think they have something like 300,000 acres.

Mr. STAFFORD. How did the State come into possession of these lands?

Mr. MYERS. They bought it from the lumbermen and individuals after they had stripped them.

Mr. STAFFORD. How many years ago did they enter upon that policy?

Mr. MYERS. They have been buying lands now for probably five years.

The CHAIRMAN. How long do you say that this second growth has been growing, as a rule?

Mr. MYERS. It has been growing seven years to my knowledge. Of course, some of it has been growing a long time.

The CHAIRMAN. Of course seven years would barely bring it above the top of the ground. Have you any idea how old this second growth is?

Mr. MYERS. Some of it is from 12 to 15 years old. Some of it is probably 18 years old.

The CHAIRMAN. Do you mean trees that old?

Mr. MYERS. It has been that long since it was cut over.

The CHAIRMAN. How large are the trees now on that land?

Mr. MYERS. The trees range from 8 to 14 inches.

The CHAIRMAN. Do you know how old these trees are?

Mr. MYERS. No; I do not know how old they are.

The CHAIRMAN. How thick do they stand on the ground?

Mr. MYERS. Do you mean the number of trees per acre?

The CHAIRMAN. Yes; or about how far apart do they stand?

Mr. MYERS. We have some second-growth trees standing not over 1 foot apart, but a large percentage of this will finally die out. We have some birch trees 12 inches in diameter standing as close together as 3 or 4 feet apart.

The CHAIRMAN. You speak of trees 8 to 14 inches in diameter; how thick are they?

Mr. MYERS. Some about 3 to 4 feet apart.

The CHAIRMAN. Twelve-inch trees?

Mr. MYERS. Yes, sir.

The CHAIRMAN. They must be 150 years old to be that far apart.

Mr. MYERS. I do not think so. We have a property where I can show you trees growing 3 feet apart.

The CHAIRMAN. We want to see any trees you have standing 3 or 4 feet apart.

Mr. MYERS. You shall see them. When I stated birch trees 12 inches in diameter, standing 3 feet apart, I had in view our property at Birch Hollow, known as our second growth, toothpick territory. These trees are very tall and I have cut down a number of trees 9 inches in diameter stump that will only reduce to 7 inches at the last 4 feet cut out of the top. I do not make this statement to leave you under the impression that the trees on all our property grow 3 or 4 feet apart. This property is an exception to the average.

Mr. STAFFORD. This afternoon you stated that on lands owned by your company where you are reforesting, you allow the trees to come up as they will and do not engage in planting. Where the State engages in forestry, do they plant?

Mr. MYERS. I have not known them to do any planting. They let the trees come up as they will.

Mr. STAFFORD. Do you believe, with such a plan as that, your company can engage in reforesting its lands at a profit?

Mr. MYERS. I do not know whether it can be done at a profit or not. I can say that we can reproduce our pulp wood for from \$1.90 to \$2.50 per cord in that manner, and I think it is more successful than planting, because we have trees that are acclimated and better adapted to the soil. We have sent to the South for the North Carolina poplar, as they call it, and the Department of Forestry tried to interest us in the tulip tree. We planted some of these trees, on the Powers Run property, alongside of some poplars, but they did not thrive.

The CHAIRMAN. Is a 40-acre tract of good hard-wood forest here worth more for pulp-wood purposes than the same number of acres of hemlock would be to you?

Mr. MYERS. I can not answer that question. I know about what we would get off 40 acres in hard wood, but we have not taken body hemlock off 40 acres as it grows.

The CHAIRMAN. Can you grow as much hemlock on a 40-acre tract as you can hard wood?

Mr. MYERS. Yes; you can, but it will not grow as fast.

The CHAIRMAN. Hemlock can not grow as fast as the tulip tree, but it will certainly grow faster than the maple, which is the prevailing tree in this locality.

Mr. MYERS. I do not agree with you there. I think the maple through our section grows rather rapidly. Take 40 acres of maple,

6 or 8 inches to-day, and in thirty years it will produce probably 15 cords of pulp wood per acre.

The CHAIRMAN. How is that, Mr. Paine? While you may not pay as much for hemlock as hard wood, is the number of cords of hemlock worth just as much, or more, or less, than the same number of cords of maple for the production of fiber?

Mr. PAINE. The hemlock is necessary where spruce is not available for the sulphite process.

The CHAIRMAN. And can be used for the soda process?

Mr. PAINE. And can be used for the soda process, but is not as valuable for the soda process as the maple. A cord of maple, 128 cubic feet, will yield at least 1,150 pounds per cord by the soda process.

The CHAIRMAN. It will?

Mr. PAINE. Yes, sir.

The CHAIRMAN. Spruce yields?

Mr. PAINE. A cord of good spruce—I am talking of peeled wood—a cord of peeled wood, spruce, will yield 1,100 pounds by the sulphite process.

Mr. RYAN. What is the weight of that wood?

Mr. PAINE. Mr. Myers can answer that.

Mr. MYERS. A cord of hard wood will weigh 2½ tons, seasoned; 3 tons, green. Hemlock, seasoned—body hemlock—will weigh about 2½ tons, green, and about 2 tons, seasoned.

The CHAIRMAN. I was under the impression that hemlock would weigh 4,200 pounds to the cord, seasoned.

Mr. MYERS. I have always figured on 2 tons.

Mr. PAINE. A cord of hemlock, by the soda process, will not yield over 650 pounds of pulp.

The CHAIRMAN. A cord of hemlock?

Mr. PAINE. By the soda process.

The CHAIRMAN. As against 1,150 for hard wood?

Mr. PAINE. Yes, sir.

The CHAIRMAN. So that for the soda process maple is more valuable than hemlock?

Mr. PAINE. Yes, sir.

The CHAIRMAN. Is the cost of reducing it any greater?

Mr. PAINE. No, sir.

The CHAIRMAN. It takes just as much caustic soda?

Mr. PAINE. It does not take quite as much caustic soda to reduce the hemlock, but it takes more bleach.

The CHAIRMAN. Is the labor the same?

Mr. PAINE. Yes, sir.

The CHAIRMAN. The cost per cord, you say, is the same for reducing hemlock as it is for reducing maple?

Mr. PAINE. Yes, by the cord.

The CHAIRMAN. And the cost per pound of product would be a great deal higher for hemlock than maple?

Mr. PAINE. Yes, sir.

The CHAIRMAN. That is for soda fiber?

Mr. PAINE. Yes, for the soda fiber.

Mr. MYERS. A cord of slabs and edgings will weigh 2,400 to 2,500 pounds.

The CHAIRMAN. How much do you figure a cord of slabs will make in sulphite?

Mr. PAINE. A cord of slabs and edgings in sulphite, as we get them here, will produce about 550 pounds. In other words, we figure it takes 2 cords of slabs and edgings to equal a cord of body wood by the sulphite process.

The CHAIRMAN. You have a great deal more expense in preparing slab wood for the sulphite mill than in straight, clean hemlock?

Mr. PAINE. Yes, sir.

The CHAIRMAN. It produces only about one-half as much for sulphite?

Mr. PAINE. Yes, sir.

The CHAIRMAN. Then you must be able to buy your slab wood very cheaply in order to be advantageous to use it, as against clear hemlock?

Mr. PAINE. Yes, we obtain it for about half the price of spruce.

The CHAIRMAN. How does it compare with hemlock? I understand you do not use spruce.

Mr. PAINE. Yes, we have bought in the last year about 600 cords of spruce from Canada.

Mr. MYERS. Nearer 1,000 cords.

The CHAIRMAN. Where did it come from?

Mr. MYERS. A small part of it came from Wyoming County, this State, and the balance from Ontario, Canada.

The CHAIRMAN. Did you buy it for experimenting?

Mr. PAINE. Yes, sir.

The CHAIRMAN. Do you find it profitable to make sulphite out of spruce?

Mr. PAINE. Yes.

The CHAIRMAN. You practically eliminate spruce in the manufacture of sulphite here?

Mr. PAINE. We have never used it here beyond a little experimenting that we have done now and then. There is no doubt that the sale of these edgings and slabs is a profitable business to the sawmill men, and of course they are taking advantage of it. We are buying hemlock slabs, and the Erie mill, at Erie, Pa., which makes sulphite, also buys slabs, and there is more or less competition for these slabs. I stated in Washington that when I was engaged in building a greater part of this mill that they were burning slabs and edgings within one-quarter of a mile of this mill. At the end of the sawmill was a pit, and what slabs they could not burn under their boilers were burned in this pit. We got our slabs at that time for 25 cents a cord. We loaded the slabs on wagons and hauled them to this mill. The actual cost of these slabs, and they were a great deal better slabs than we are getting now, was not over \$1 per cord to us. That was very cheap wood.

The CHAIRMAN. When was that, Mr. Paine?

Mr. PAINE. In 1897. But they ceased burning their slabs. There came a demand for lath, and then our demand increased, and the price of this material has gone up until we are now paying the price that Mr. Myers testified to this afternoon.

The CHAIRMAN. What price did he testify to?

Mr. MYERS. About \$5.35 per cord.

The CHAIRMAN. Is that the price of the wood on the cars?

Mr. MYERS. No; here at Johnsonburg, ready for the chipper.

The CHAIRMAN. This is equal to \$10 per cord for clear hemlock?

Mr. PAINE. Yes; it is just about what we can land spruce here for.

The CHAIRMAN. Where can you get spruce at that price?

Mr. MYERS. We can get it from the Haliburton district, Ontario, Canada, and costs us about \$10.30 per cord here.

The CHAIRMAN. Can you get any spruce from Quebec at \$10.30?

Mr. MYERS. No; we get our spruce from Ontario.

The CHAIRMAN. You can not get any spruce from Ontario from the Crown lands. You might be able to get some from private lands.

Mr. MYERS. That is where we are getting it from. Practically all the spruce we have received is from Canada, but we have received several carloads from this State.

The CHAIRMAN. This is only a local supply and must be scant.

Mr. MYERS. It does not amount to anything.

The CHAIRMAN. What I want to get is all the information I can in reference to forests. How do you figure that the lands which you are holding and on which nothing is growing are profitable to hold?

Mr. MYERS. This is problematical and will depend altogether on what our company is willing to do. So far they have always allowed me to spend the amount of money I deemed necessary to keep up our lands. It is a problem for them to figure out whether their business will allow them to engage in reforesting. I have always represented to our company that we can reforest the lands which we now hold, by the method we are pursuing, and a basis of from \$1.90 to \$2.50 per cord of pulpwood. It does not require the same quality timber nor the same size timber for pulp wood as for lumber. As far as we have operated, we have allowed nothing to waste, and I believe when you go over our property with us to-morrow you will be surprised to see the manner in which we cut over our lands. We have one property in Warren County, this State, which we purchased for \$3.50 per acre.

The CHAIRMAN. In what shape was it when you purchased it?

Mr. MYERS. The lumbermen had cut off all the hemlock and the best hardwood.

The CHAIRMAN. What was growing on it at that time?

Mr. MYERS. Principally maple.

The CHAIRMAN. How large maple?

Mr. MYERS. I suppose from 6 to 10 inches.

The CHAIRMAN. I would not call that land with nothing on it. Have you any land owned by the company which is perfectly barren of trees?

Mr. MYERS. Yes, sir.

The CHAIRMAN. Is there anything growing on it but bird cherry?

Mr. MYERS. Yes; some with nothing on it but briers.

The CHAIRMAN. Do you think that will reforest itself?

Mr. MYERS. Yes; I think it will, provided it is protected from fire.

The CHAIRMAN. It will be a long time?

Mr. MYERS. Yes.

The CHAIRMAN. How much of that land do you have?

Mr. MYERS. About 10,000 acres of our land is barren.

The CHAIRMAN. Practically the same as what we saw from the railroad?

Mr. MYERS. Yes, sir. Even in places where we have a good growth of hard wood, we will get 100 acres or so entirely barren and without any growth.

The CHAIRMAN. Have you any large tracts—I do not mean a mere 100 acres, but from 5,000 to 10,000 acres—that are practically barren?

Mr. MYERS. No; not in one body.

Mr. RYAN. Is there any of this barren land suitable for agriculture?

Mr. MYERS. No; not very much.

Mr. RYAN. Is the ground stony and craggy?

Mr. MYERS. Yes, sir.

The CHAIRMAN. On this other land with the second growth, what is the prevailing timber on that? Hemlock?

Mr. MYERS. Hemlock, maple, and beech.

Mr. STAFFORD. What would be the value of this barren land which is unsuitable for agriculture after it has been stripped?

Mr. MYERS. I would not attempt to place a value on it. I do not know what anyone would want it for except to grow timber.

Mr. STAFFORD. Is there much of that land through the State, outside of the state forest reserves?

Mr. MYERS. Yes; thousands of acres of it.

The CHAIRMAN. I suppose, in view of the mineral resources which have been developed in the past in this State, there is a certain speculative value to the land; no one knows what it might produce.

Mr. MYERS. Yes, sir.

Mr. STAFFORD. Is the speculative value an incentive to persons to carry that land for a great length of time?

Mr. MYERS. No; I do not think so.

Mr. STAFFORD. You are not a real estate man?

Mr. MYERS. No.

The CHAIRMAN. Do you know when this land was cut over for logging purposes that you have this second growth on now?

Mr. MYERS. They finished cutting it just when we made the purchase. That was in 1903.

The CHAIRMAN. Did you purchase it from the parties who cut it over?

Mr. MYERS. We purchased it from the owner. He had sold the stumpage to the lumbermen.

The CHAIRMAN. Who was the owner?

Mr. MYERS. H. J. Jamison, Warren, Pa.

The CHAIRMAN. Who cut the land over?

Mr. MYERS. Doughty Brothers.

The CHAIRMAN. And that was in?

Mr. MYERS. In 1903.

The CHAIRMAN. Do you know what they cut off?

Mr. MYERS. They cut the hemlock and the best hard woods.

The CHAIRMAN. And that is in shape now that you can cut pulp wood and almost cut saw logs?

Mr. MYERS. No; we figure on holding that for twenty to twenty-five years yet.

Mr. STAFFORD. Do you figure that the land the company now owns is sufficient to provide the company continuously with an adequate supply of pulp wood, for the present capacity of the mill?

Mr. MYERS. Yes, sir; I think the land we now hold will almost furnish us with a sufficient supply if properly taken care of.

Mr. PAINE. What tract are you going to take the gentlemen to to-morrow?

Mr. MYERS. I think we will go to Wilcox.

Mr. PAINE. How many acres are in this tract?

Mr. MYERS. I always call it our 9,000-acre tract. There is not that much in it, actual survey.

Mr. PAINE. How many cords do you estimate are on that tract?

Mr. MYERS. I estimate there are 250,000 cords.

Mr. PAINE. Which would last our soda mills how many years, without figuring on any growth?

Mr. MYERS. About five years. You see the way we operate on that tract, it will last a great number of years, probably twenty-five years. We take only the matured timber. We have timber on that tract which is deteriorating.

Mr. PAINE. Why?

Mr. MYERS. On account of age. After a tree reaches a certain age, it should be cut, as it will deteriorate from that time on.

The CHAIRMAN. Mr. Myers is correct, as a tree does not gain after it reaches a certain age. In fact it goes back.

Mr. PAINE. You call that first growth, simply because you do not know there was any previous growth?

Mr. MYERS. Yes. As far as I can see in looking over the territory there has been no hard wood taken off. Of course, the hemlock, cherry, and some ash has been taken off. About twenty-five years ago they took off the cherry, and the hemlock was taken off about the same time. At that time they cut down trees for the hemlock bark only. Most of these trees are still lying there. We have gone over the ground and shipped in several thousand cords which had been lying in the woods twenty-five years.

The CHAIRMAN. Does not this old hemlock rot?

Mr. MYERS. We find it does in certain sections. Mr. Armstrong and I cut into these old logs in different sections. In some sections the wood would be fairly sound, while in others it was badly rotted. On our Big Mill Creek property we are shipping in to-day hemlock pulp wood from old timber cut over twelve or fifteen years ago.

The CHAIRMAN. It looks it.

Mr. MYERS. Of course, we could get that hemlock to look a little better by going to more expense in the woods, but I leave the mill take care of that part of it.

The CHAIRMAN. What wood you pick off the ground, is that much wood saved from total loss?

Mr. MYERS. Yes, sir.

The CHAIRMAN. You can afford to go to a little more expense in preparation than you can buy clean hemlock for?

Mr. MYERS. Yes, sir.

Mr. PAINE. There is a certain stage of decomposition beyond which we can not go.

The CHAIRMAN. The Forest Service knows now, or shortly will learn, how to appreciate your efforts, because they have 40,000,000 feet of this hemlock and hard wood piled up in various stages of decomposition, a large share, or a fair proportion, of which has evidently been lying on the ground for years.

Mr. MYERS. Last winter we cut hemlock stumps where the lumbermen had cut over six years ago, but found that decomposed beyond our use.

The CHAIRMAN. What do you mean by cutting up stumps?

Mr. MYERS. Where lumbermen had cut stumps from 3 to 6 feet above the ground, we went over and cut them down to the ground.

The CHAIRMAN. Hemlock wood that is matured is usually rotten at the bottom.

Mr. MYERS. We found it was not rotten at the bottom, but the rot had run through.

The CHAIRMAN. A large share of virgin hemlock trees will have dry rot at the bottom. This probably is the reason your stumps were so badly off.

Mr. MYERS. I account for it from the fact that the water would saturate through the stump and then dry off. Going through this process continually the hemlock will rot in a very short time. You probably know that hemlock under water will remain preserved for a number of years, while if you have it where it will become water-soaked and then dry off continuously it will soon rot.

STATEMENT OF A. G. PAINE, JR., SECOND VICE-PRESIDENT AND GENERAL MANAGER OF THE NEW YORK AND PENNSYLVANIA COMPANY.

The CHAIRMAN. Will you describe the soda process for the record, Mr. Paine?

Mr. PAINE. The first process is to chip the peeled wood into small chips.

The CHAIRMAN. You do not ross any of your wood here?

Mr. PAINE. No, sir.

The CHAIRMAN. Either for sulphite or soda?

Mr. PAINE. No, sir. The next step is to screen the chips by passing them through revolving or shaking screens, whereby the fine particles of wood and dirt are removed, and the large pieces that are too large to be properly cooked are returned to the chipper or a shredding machine to be cut up finer and rescreened.

The CHAIRMAN. When you say small particles are screened out and dirt, you mean sand, dirt, and sawdust?

Mr. PAINE. Yes, sir.

The CHAIRMAN. You aim to leave in everything that is over one-eighth inch or even smaller?

Mr. PAINE. Yes, sir.

The CHAIRMAN. Your average chip would be the same size, or a trifle smaller, or about half the size of those used for sulphite? Your chips would average probably one-half or three-fourths inch?

Mr. PAINE. About three-eighths to one-half inch. I am now describing the process at this mill—the soda process.

The CHAIRMAN. Then anything that is over one-half inch, or such a matter, is that returned for finer cutting?

Mr. PAINE. Yes. The chips are then conveyed to digesters. The size of the digesters at this mill are 7 feet in diameter and 29 feet long. They are upright digesters and stationary. It is very important to have the digesters free from rivets, and they are what are known as welded digesters. The chips are run into the tops of these digesters, and at the same time caustic liquor is put into the digesters with the

chips, about 4,200 gallons of 11½ for 12 degree caustic soda, Baumé test, at 60° F. When the digester is full the manhead is secured and steam is turned on. The caustic soda is circulated by steam injectors and the pressure is run up to 125 or 130 pounds. The wood is cooked six to eight hours, according to the dryness of the wood. The drier the wood, the more rapidly it absorbs the caustic soda. The caustic soda enters the chips at their ends and follows the fiber. If the chip contains moisture the pressure of the moisture retards the absorption of the liquor, and the cooking process is necessarily longer. To maintain a constant circulation the pressure on the digester is relieved from time to time by blowing off. When the cook is completed, a valve at the bottom of the digester is opened and the contents are discharged under pressure into a suspended receiving tank. The steam escapes through a vent at the top of the tank, and the pulp and liquor fall to the bottom. When the digester is discharged, the valve is closed and the cooking operation ends. The contents of the digester, which are then in the blow-off tank, are dropped into a wash pan. This wash pan is equipped with a perforated bottom, and the liquor drains from the pulp through this perforated bottom. Weak hot liquor is sprayed on the top of the pan and percolates down through the pulp. Following this weak hot liquor, hot water is used, and by this method the intercellular matter which is in solution drains away from the pulp, carrying with it the soda. I will describe later the treatment of the liquor.

The CHAIRMAN. What color is this when it first comes out of the digester?

Mr. PAINE. A very dark brown—almost a black.

The CHAIRMAN. Caused by what?

Mr. PAINE. Caused by the action of the caustic soda on the intercellular matter.

The CHAIRMAN. That is, the caustic soda burns the intercellular matter into a charcoal which affects the color?

Mr. PAINE. I do not think it burns it. I am not prepared to state what chemical action takes place. It affects the color of it, however. The caustic soda has the same action on the intercellular matter in wood that alcohol has on shellac—it dissolves it. After the pulp is thoroughly washed in the wash pans it is then hosed out into stuff chests.

The CHAIRMAN. What do you mean by hosed out?

Mr. PAINE. There is a gate valve at the bottom of each wash pan. That gate is opened and the pulp is forced out through the gate by a head of water delivered through a hose nozzle.

The CHAIRMAN. This pulp in the wash pans is rather a thick substance?

Mr. PAINE. As thick as a porridge; and we turn water on it.

The CHAIRMAN. You turn water on it to thin it?

Mr. PAINE. Yes, so that the pump will take it. It is hosed out in a comparatively thick condition to the stuff chests. From these stuff chests it is pumped out onto suction diaphragm screens. These screens are equipped with gun metal or brass plates, which contain fine slots. Under the brass plates are vibrating diaphragms, which lift and suck as they move up and down on cams. This draws the

fine fibers through the slots. Any undigested matter and coarse dirt are retained on top of the screen plates, the fiber passing through. This is called screening. In order to screen the fibers it is necessary to use a very large amount of water, and the pulp flowing away from the screens is what is called thin, a very small amount of pulp to a large amount of water. This surplus water is removed by feltless wet machines, which consist of cylinders revolving in vats, the water being removed through the center of the cylinder, and the pulp forming on the outside of the cylinder is removed with doctors or blades, and in some cases with a current of air.

The pulp is then conveyed from these wet machines to bleachers, where it is bleached by the introduction of chlorine, the solution testing from $3\frac{1}{4}$ to 4 degrees Be. at 60 degrees F. This bleaching process requires a treatment of from four to six hours, and the pulp then passes into drainers, where any chlorine remaining is washed out with clear cold water. The pulp is then ready for the paper mill.

The liquor containing soda and the intercellular matter, which is drained from the wash pans, is pumped to a multiple effect evaporator, where it is boiled down from an average of $9\frac{1}{4}$ degrees Be. at 60 degrees F. to 38 or 40 degrees at the same temperature, and is when boiled down of the consistency of hot pitch. From the multiple effect evaporators it is pumped into revolving furnaces. These furnaces vary from 8 to 12 feet in diameter and from 14 to 18 feet in length. They are lined with brick and revolve slowly. The thick, tarry liquor smears over the inner surface of these furnaces and is fired by heat generated in a fire box located at one end of the rotary. By this process the intercellular matter is burned or charred. A large part of it is burned to an ash, but it is only necessary to thoroughly char the intercellular matter so as to make it insoluble in water.

What causticity remains in this liquor by the time it reaches this part of the process disappears through the carbonizing effects of the combustion, and the resultant ash discharged by this rotary consists of charcoal and carbonate of soda. The black ash, as it is called in the trade, is then conveyed to leaching tanks and put through what is known as the diffusion system; that is, a series of tanks are filled with black ash, and hot water is introduced and circulated from one tank to another. The charcoal being insoluble and the soda ash soluble, the latter is removed from the charcoal and passes out as a clear liquid. Hot water is again introduced, so as to thoroughly wash out all traces of soda from the charcoal. The resultant liquid is then pumped to causticizing tanks, where it is causticized by the introduction of freshly burned caustic lime. It takes 50 pounds of caustic lime to causticize 100 pounds of soda. The liquor is made about 98 per cent caustic. By this process, which is known as the recovery process in the soda fiber manufacture, from 84 to 90 per cent of the soda ash is recovered. That which is lost is made up by the introduction of fresh soda.

The CHAIRMAN. What is this fresh soda? How do you get that? What do you use?

Mr. PAINE. At this mill we make our own soda, as well as our chlorine, by electrolysis.

The CHAIRMAN. How is this done?

Mr. PAINE. These chemicals are made up by passing an electric current through a saturated solution of common salt, which is decom-

posed. The caustic soda flows away from the cell, the chlorine gas being drawn off by a slight vacuum to absorbing towers.

The CHAIRMAN. You manufacture here soda fiber, sulphite, and various kinds of paper?

Mr. PAINE. Yes, sir.

The CHAIRMAN. At this mill do you manufacture sulphite for sale?

Mr. PAINE. No, sir.

The CHAIRMAN. Do you manufacture any soda fiber for sale?

Mr. PAINE. Yes, sir.

The CHAIRMAN. Do you consume the most of your soda fiber in this mill?

Mr. PAINE. Yes, sir.

The CHAIRMAN. How does soda fiber and sulphite compare, of the kind you make here, in the market in value?

Mr. PAINE. At the present time there is about 35 to 40 cents per 100 pounds difference in favor of the bleached sulphite.

The CHAIRMAN. The soda fiber you make here is made in the main from hard wood?

Mr. PAINE. At this mill; yes, sir.

The CHAIRMAN. You use some hemlock which is not of the first quality?

Mr. PAINE. Yes, sir.

The CHAIRMAN. The soda fiber that you make from hard wood is of a different character from the soda fiber that you make from other kinds of wood?

Mr. PAINE. Yes, sir.

The CHAIRMAN. This soda pulp does not have a long fiber?

Mr. PAINE. No, sir.

The CHAIRMAN. But is more or less used for mixing with sulphite in the manufacture of various grades of writing paper, book paper, and other kinds?

Mr. PAINE. Yes, sir.

The CHAIRMAN. What is the difference between soda fiber made from hard wood and soda fiber made from poplar, cottonwood, or even clear hemlock?

Mr. PAINE. The soda fiber made from poplar is slightly longer, the fibers in the poplar being longer than the fibers in these hard woods.

The CHAIRMAN. Is it a matter of fact that the fiber in cottonwood is really longer than that of hard wood?

Mr. PAINE. Yes, sir.

The CHAIRMAN. Do you chip cottonwood as closely as you do hard wood?

Mr. PAINE. No, sir.

The CHAIRMAN. Is not that the reason, that in order to allow the caustic soda to follow up the fibers in the hard wood, where the wood is very compact, you require to cut it much shorter than you would soft wood?

Mr. PAINE. We undoubtedly cut up many fibers by cutting the wood shorter, but the fact is that the fiber in its natural state in cottonwood is longer than the fiber in hard wood.

The CHAIRMAN. Whatever may be the fact about that, you may be right, but I am not sure that soda fiber made from hard wood is shorter than soda fiber you make from poplar, or cottonwood.

Mr. PAINE. It is slightly shorter, not so much so but that it would require an expert to tell the difference between the fiber we make from all poplar at one of our mills, and that made from hard wood at this mill. We have to admit that you can not make very good paper out of some soda fiber by itself, simply because it has not enough strength, but you can make out of some soda fiber excellent paper, not, however, from short-fiber wood. Poplar is a short-fiber wood.

The CHAIRMAN. What kind of wood is it you use to make this paper that is of great tensile strength?

Mr. PAINE. Jack pine.

The CHAIRMAN. Is that the only kind?

Mr. PAINE. Spruce makes a long-fiber pulp by the soda process, but spruce can be used to a better advantage by the sulphite process. Jack pine can not be cooked by the sulphite process.

Mr. STAFFORD. Is it economically possible to manufacture pulp out of sawdust?

Mr. PAINE. Not that I know of.

The CHAIRMAN. Do you think sawdust has sufficient length fiber to make any kind of reduced paper fiber in any way?

Mr. PAINE. I think you could succeed in making pulp from sawdust, but I do not think it would be a practical process, and the fibers would be very much shorter than if the same wood had been cut into chips.

The CHAIRMAN. I think you could make pulp out of it in the same way and on the same principle you would make flour. Do you think it could be used?

Mr. PAINE. It would be useless.

The CHAIRMAN. It might be used as a filler, but it would not be as good or as cheap as clay?

Mr. PAINE. It would not be as cheap as clay. It would not give as good a color, and would not be nearly as cheap as clay; so there would be no object in making it.

The CHAIRMAN. You spoke, by the way, of having your soda digesters free from rivets. What is understood by that?

Mr. PAINE. The action of the soda liquor, in connection with the intercellular matter, on any riveted joint is very severe. Soda is a cleansing liquid and it will cut out between a joint created by bringing together two pieces of steel or iron. What makes a steam boiler tight is the corrosive action of the water on the plates and joints, and it does not depend altogether on the calking; even in many cases where a boiler leaks it will finally take up by this corrosive action and the leak stop itself. Now, in the digesters that are riveted the constant expansion and contraction of two plates riveted together keeps the crack open sufficiently for the caustic soda to enter and to finally leak through, and the minute it blows out through the rivet holes or joints you have a leak that you can not stop. In the early days, before the process of welding metals was perfected, our digesters were all riveted, and we had to replace them every few years at great expense. Furthermore, we had to work on them constantly.

Mr. STAFFORD. As to the description you have just given us of the process of soda-fiber making at this mill, is not this the same in general followed by other mills in other parts of the country where they make soda fiber?

Mr. PAINE. Yes, sir.

The CHAIRMAN. That is, largely the same?

Mr. PAINE. Yes, sir.

The CHAIRMAN. You spoke a while ago of taking the liquor out of the digesters into suspended tanks. What do you mean by suspended tanks?

Mr. PAINE. I mean a tank elevated above the wash pans.

The CHAIRMAN. What is the reason for having this tank in that position?

Mr. PAINE. Merely one of convenience.

The CHAIRMAN. In order to allow your liquor and pulp to run by gravity?

Mr. PAINE. Having a pressure on the digesters, it costs nothing to blow the pulp to a reasonable height, and having it once in that position we can drop it into the wash pans without going to the expense of pumping it.

The CHAIRMAN. There is no other object in having the tank suspended, so that you have it the right height?

Mr. PAINE. That is all.

The CHAIRMAN. What is the capacity of your mill here?

Mr. PAINE. Seventy-five tons of soda pulp, 35 to 40 tons of sulphite, and 100 tons of paper per day.

Mr. RYAN. That is, every twenty-four hours?

Mr. PAINE. Yes, sir.

The CHAIRMAN. What kind of papers do you produce?

Mr. PAINE. Machine-finish book papers, super calender book papers, tablets, writing, envelope, writing manilas, lithograph, label, alkali proof, cover papers, and coating papers.

The CHAIRMAN. What are coating papers?

Mr. PAINE. Papers that are to be subsequently coated.

The CHAIRMAN. What is coating?

Mr. PAINE. Coating is a process of placing a solution of clay and casein on the surface of the paper.

The CHAIRMAN. For what purpose is that done?

Mr. PAINE. For fine printing, especially half-tone work.

The CHAIRMAN. Does it make a smooth paper?

Mr. PAINE. It produces a glossy, smooth finish.

The CHAIRMAN. You speak of writing manilas; that is the same as railroad manilas?

Mr. PAINE. Yes, sir; with the exception that some railroad manilas contain ground wood, while we do not use any of this article.

The CHAIRMAN. About what proportion of sulphite to soda fiber do you use in the manufacture of your papers? You manufacture about twice as much soda fiber that you do sulphite per day. About what proportion do you use in your paper?

Mr. PAINE. On the average I should say we use about half and half, a little more sulphite than soda.

The CHAIRMAN. Of the character of the two fibers which you make here, the more sulphite you put in the paper is the paper a little stronger?

Mr. PAINE. Yes, sir.

The CHAIRMAN. That is, the tensile strength is greater?

Mr. PAINE. Yes, sir. The sulphite is the skeleton and the soda is the body.

The CHAIRMAN. The soda has largely to do with the finish?

Mr. PAINE. Yes; the soda makes a compact sheet and fills up the pores, gives a smooth surface, and makes a printable sheet.

The CHAIRMAN. You could make a smooth sheet of wrapping from sulphite?

Mr. PAINE. Yes, sir.

The CHAIRMAN. Does it make a good printing surface or writing surface?

Mr. PAINE. It makes a fair writing surface, but does not make a good printing surface.

The CHAIRMAN. When you bleach the fiber it affects only the color, and no other quality of the fiber?

Mr. PAINE. Its action on the fiber is to change the color and it also improves it by softening it.

The CHAIRMAN. But otherwise, it has no ill effect?

Mr. PAINE. No, sir.

Mr. RYAN. In speaking of soda fiber what effect has that on paper as distinguished from wrapping paper?

Mr. PAINE. It makes a compact soft sheet which meets the requirements of a good sheet of printing paper.

The CHAIRMAN. Do you use some clay in connection with your soda fiber?

Mr. PAINE. Yes, sir.

The CHAIRMAN. Do you know whether you use as much clay in the paper you make from soda and sulphite as they do in the paper made from sulphite and ground wood?

Mr. PAINE. We use a great deal more where we use soda and sulphite, because we make a different quality of paper.

The CHAIRMAN. Do you use much sizing in your papers? Is all the paper you make sized?

Mr. PAINE. Yes; all, except what is known as water leaf.

The CHAIRMAN. What is water leaf?

Mr. PAINE. Paper made without sizing. It is nearly as absorbent as a blotter. We have a call for some of that paper.

Mr. RYAN. For what is that used?

Mr. PAINE. A great deal of it is used for photographic purposes, but I do not think that much of what we make is used for that purpose. It is also used for some forms of printing.

The CHAIRMAN. What is the market price of this paper, book and print, that is made from sulphite and soda?

Mr. PAINE. It depends largely on the packing, the weight of the paper, and the process it is to be subjected to at the mill. Take, for example, an antique M. F., a low machine-finish paper in rolls of good weight, this would sell to-day at from $3\frac{1}{2}$ to $3\frac{3}{4}$ cents per pound.

The CHAIRMAN. That is about the cheapest you make?

Mr. PAINE. Yes, sir.

The CHAIRMAN. Then you can add to that the finishing?

Mr. PAINE. Yes, sir.

The CHAIRMAN. Then you add to that cost for supercalendering?

Mr. PAINE. Yes, sir. We charge 25 cents extra for our supercalender paper. That is our usual charge. Some mills add 30 cents, others 35 cents, and sometimes on very desirable orders, paper of good weight, they charge as low as 20 cents per 100 pounds, but the

customary price is 25 cents per 100 pounds for supercalendered paper. Our average cost of supering at this mill is about 22 cents per 100 pounds for all classes of supering, so that we are paid simply the extra cost of supering the paper.

The CHAIRMAN. I take it, it would be wholly out of the question at the present time to use soda fiber for the manufacture of news print?

Mr. PAINE. Yes, sir.

The CHAIRMAN. If the supply of spruce should be exhausted, there is at the present time, as far as you know, no other kind of tree which would take its place for the manufacture of ground wood?

Mr. PAINE. No, sir.

The CHAIRMAN. And if the supply of spruce should be exhausted—

Mr. PAINE. Do you class balsam with spruce, as a large amount of balsam is used in—

The CHAIRMAN. I am told that no balsam is used in the manufacture of ground wood.

Mr. PAINE. A considerable quantity, but a small percentage of the total is used; but where they make good ground wood some mills will not use it at all.

The CHAIRMAN. So that if the supply of spruce should become exhausted, it would probably force the manufacturers of news printing paper to the soda process, because by the soda process you can use almost anything?

Mr. PAINE. Yes, sir; but I should not say force, though I do not know what else they would fall back on. I do not know what other fiber they could use. They use unbleached sulphite in print papers, and of course they could increase the consumption of sulphite; but most sulphite for news papers when used in its unbleached state is made from spruce. If made from hemlock, the hemlock would not last long, and the hemlock, being darker in color, would have to be bleached slightly. It does not make as bright a color as spruce sulphite.

The CHAIRMAN. You say the soda fiber is a very costly fiber to make. Why should it be so costly? With the sulphite you have to buy sulphur, and when the sulphurous acid is exhausted you have to throw it away. You buy a little salt—common table salt, which is extremely cheap—and you get your bleach out of it, and you get your caustic soda out of it, and when you use it you save it and use it over and over. Probably some that you are using now you used ten years ago.

Mr. PAINE. The cost of recovering soda, plus the cost of fresh ash used to take the place of that which is lost, costs more than the sulphurous acid, which is thrown away. In other words, you can buy brimstone, at the present market price, at \$22 per ton and make sulphurous acid and throw it away after using cheaper than you can use soda, buy the soda you do not recover, plus the cost of recovering the soda.

The CHAIRMAN. You use a large amount of clay, do you not? Why could you not use clay and sulphite instead of soda and sulphite?

Mr. PAINE. We could not use clay and sulphite. We could not hold enough of the clay in the sheet. After the fibers hold 20 per cent of the clay used it would flow away from the machine. You could prob-

ably use 75 per cent sulphite and 25 per cent clay, but it would make a thin sheet. It would not be a sheet of newspaper.

The CHAIRMAN. You speak of sulphur as brimstone?

Mr. PAINE. Yes, sir.

The CHAIRMAN. Where do you get your sulphur from—this country or abroad?

Mr. PAINE. From both places.

The CHAIRMAN. What do you have to pay for it?

Mr. PAINE. A year ago we made a contract for our supply at \$19 per ton. That was in 1907. The market price in 1908 and for 1909 is \$22 per ton.

The CHAIRMAN. Is the market price the same for Louisiana that it is for Sicilian sulphur?

Mr. PAINE. Yes, sir.

The CHAIRMAN. You can buy it just as cheaply whether it is American or Italian sulphur?

Mr. PAINE. Yes, sir.

The CHAIRMAN. Is there a combination among the sulphur people?

Mr. PAINE. I could not say.

Mr. STAFFORD. Do you know whether there is any difference in the freight rate from Sicily to New York and the freight rate from Louisiana fields to New York?

Mr. PAINE. I do not know what these freight rates are. We buy the sulphur ex-dock.

Mr. RYAN. These are the only two sources of supply?

Mr. PAINE. Yes.

The CHAIRMAN. Do you have any question as to the supply of pulp wood in this locality in the future?

Mr. PAINE. How far in the future, Mr. Mann?

The CHAIRMAN. Indefinitely.

Mr. PAINE. Not if we are prepared to spend the amount of money necessary to conserve our supply.

The CHAIRMAN. Of course, if you are prepared to spend the money; but do you think an individual company is able to spend the money in reproducing the forests, paying taxes, expenses of protection, etc.?

Mr. PAINE. I think they are, if they can get a sufficiently remunerative price for their manufactured goods.

Mr. STAFFORD. When you feel secure as to your supply, you are not taking into consideration a disastrous fire that may come, no matter what protection you take, which would destroy your forests entirely?

Mr. PAINE. Of course, if we have a fire of that kind; but that is not likely, the way we are operating in the woods. Fires, as a rule, do not run in what we call first-growth timber. They stop there.

Mr. RYAN. With the present rate of taxation that you pay, making your own provision for fire protection, do you believe you could profitably reforest the land?

Mr. PAINE. It would all depend on the price we could get for our paper. You can readily see that wood lands bought at \$3.50 per acre and carried for twenty years—

Mr. MYERS. It would cost from \$30 to \$40 per acre in thirty years.

Mr. PAINE. And if that wood is held for that length of time, it follows that it is much more costly wood.

Mr. RYAN. How much do you expect to obtain from an acre, in cords?

Mr. PAINE. That depends entirely upon the location and the growth. I think we could get from some of our lands 20 cords to the acre, and other lands will run as high as 60 cords to the acre.

Mr. MYERS. Not in thirty years. I figure that in thirty years an acre will produce about 15 cords.

Mr. RYAN. Where you are now reforesting?

Mr. PAINE. I think you mean the wood that is pretty well grown. For example, we have tracts that we could cut over to-day that we do not propose to touch for ten years.

Mr. RYAN. In that estimate, do you figure anything for fire protection?

Mr. MYERS. We are not prepared to say just what it is going to cost.

The CHAIRMAN. As a matter of fact, you have not cut over any second-growth timber that you own?

Mr. MYERS. No; we have not.

The CHAIRMAN. You do not know from experience what it will cost?

Mr. MYERS. No, sir.

Mr. STAFFORD. What policy do you pursue in fire protecting your lands?

Mr. PAINE. During the dry season we patrol our lands.

Mr. STAFFORD. To what extent or what expense is the result of that patrol per acre?

Mr. PAINE. That is a very hard question to answer, because on some of our tracts we have a few men cruising during the dry season, and, again, on adjoining tracts that have been lumbered over, where they leave old tops which are dry, there may be a railroad near that tract which has been cut over, and this may become a serious proposition.

The CHAIRMAN. Do you have any railroads running into your tracts?

Mr. PAINE. Yes, sir.

The CHAIRMAN. Do you operate these during the dry season?

Mr. PAINE. No, sir.

Mr. RYAN. Do you have any laws in the State of Pennsylvania which provide for the destruction of slashings, etc.?

Mr. PAINE. No, sir; I do not know of any.

Mr. RYAN. There should be.

Mr. PAINE. Yes, sir; there should be.

The CHAIRMAN. What about the tariff on paper, sulphite, etc.? Do you meet any special competition with Sweden in the production of sulphite?

Mr. PAINE. Yes, sir.

The CHAIRMAN. How?

Mr. PAINE. Through the importation of their pulp products.

The CHAIRMAN. They export to us sulphite and sulphate? Is there much sulphate coming over?

Mr. PAINE. Quite a large amount.

The CHAIRMAN. There has been a large amount of sulphite imported during the last year at very low prices?

Mr. PAINE. Yes, sir.

The CHAIRMAN. Do you know how low it is being sent in here; I do not mean special lots, but the general run?

Mr. PAINE. I should say at the present time you can buy imported sulphite, of a grade fully equal to our best domestic unbleached, at from \$1.85 to \$1.95 per 100 pounds.

The CHAIRMAN. This is nearly as cheap as ground wood is now being sold for?

Mr. PAINE. Yes, at the moment; but this is an unnatural condition as to ground wood, due to water famine.

The CHAIRMAN. What is the occasion for these offerings of Swedish sulphites and sulphates, etc., at such prices?

Mr. PAINE. I can only answer that from the information I get in talking with Europeans and their representatives here. They tell me that business in Norway and Sweden has been very dull and there is an accumulation of sulphite and sulphate pulps over there, and in a desire to maintain prices in the home markets they are getting rid of their surplus pulps by dumping them into this country.

Mr. RYAN. Are these sold in this country under contracts, or sent to be sold in the open market at best prices?

Mr. PAINE. Both.

The CHAIRMAN. If the tariff were taken off sulphite and the Swedish sulphite would be sold for that much less than it is now being offered at, could American manufacturers meet that competition?

Mr. PAINE. No; not at the present manufacturing cost.

The CHAIRMAN. Why can not we do it just as well as they do it in Sweden?

Mr. PAINE. Because our labor is very much higher and nearly everything we use more costly in this country than abroad; not everything, but nearly everything.

Mr. RYAN. If the tariff were taken off everything you use in connection with your products, would you then have any fear of competition if the tariff were taken off foreign sulphite?

Mr. PAINE. If we have absolutely free trade in this country, no; we could hold our own.

The CHAIRMAN. Do you mean by that a reduction in wages?

Mr. PAINE. Yes; certainly. Not merely free trade in the articles which we use, but a reduction in the wage scale. That would follow with everything if we had free trade.

Mr. RYAN. You mean a reduction in everything that you use?

Mr. PAINE. Yes; nearly everything. My experience has been, and I have been a laboring man myself, that the American workman is accustomed to live a different sort of life to that of the European. I have been in Scottish mills and in English mills, and our manager here has been brought up in German mills, but our American workman demands a great deal more than the European, and it is a question whether he would adapt himself to a European level without a tremendous struggle.

The CHAIRMAN. Suppose the tariff should be taken off sulphite, you do not anticipate that this mill would close up and go into receivership, would you?

Mr. PAINE. I do not think so, but a good many mills would, as they are running on very close margins.

Mr. RYAN. Eliminating the question of labor, if the tariff were taken off, and you would get the benefit on everything that you use, would you then be able to compete with the foreign mills?

Mr. PAINE. No; not without a reduction in the price of labor.

The CHAIRMAN. What wages do you pay here now for men such as machine tenders?

Mr. PAINE. I offered in Washington an absolute copy of our pay roll, and this is in the record.

Mr. RYAN. Were you in business here when the present tariff went into effect?

Mr. PAINE. Yes, sir. The Dingley bill went into effect in 1897, did it not?

Mr. RYAN. Was there any additional protection given to this industry in the Dingley bill?

Mr. PAINE. I do not think so. There may be a slight difference.

Mr. RYAN. Did the passage of the Dingley law have any effect on the wages in your mill?

Mr. PAINE. Our wages have been going up ever since then, and they are at the highest point now.

The CHAIRMAN. Would the removal of the tariff on ground wood, which you do not use in these mills here, in your opinion, have any effect upon the manufacture of the kind of paper which you produce?

Mr. PAINE. Yes; it would.

The CHAIRMAN. How?

Mr. PAINE. Why, we are meeting constantly with competition with what we call adulterated papers. These are termed book papers, made with a percentage of ground wood, but only a small percentage is used which is not detected, but the adulterous effect of the ground wood is there and the paper loses its color, yet it answers the purpose. The railroad manilas contain more or less ground wood.

Mr. RYAN. Do you come in contact with Canadian sulphite or ground wood?

Mr. PAINE. Yes, sir.

Mr. RYAN. To any great extent?

Mr. PAYNE. Yes, sir.

Mr. RYAN. What percentage, if you have that information, of the amount of sulphite and ground wood that is used in this country is imported?

Mr. PAINE. I could not give you that.

Mr. RYAN. Is it not considerable portion?

Mr. PAINE. Yes, sir.

Mr. RYAN. That is an unusual condition, is it not?

Mr. PAINE. The importations have been large. I have some figures taken from the records that show that there was more sulphite imported in 1906 than in 1907, but I have not the figures for 1908.

Mr. RYAN. You have no idea what the percentage is?

The CHAIRMAN. We have published figures down to June, 1908, and will shortly publish figures both as regards importations and exportations for all the world.

Why is it they can produce sulphite so much cheaper in Sweden than they can here?

Mr. PAINE. Principally an item of labor.

The CHAIRMAN. They produce a better grade than they do in this country?

Mr. PAINE. Yes, sir.

The CHAIRMAN. More or less of the sulphite imported is actually necessary for use in this country?

Mr. PAINE. Yes, sir.

The CHAIRMAN. That is, we produce no article that quite takes its place for some grades?

Mr. PAINE. No, sir.

Mr. RYAN. Is not that one of the reasons why they have been importing such large quantities in this country?

Mr. PAINE. Yes, sir.

The CHAIRMAN. Do you know how large forests there are in Sweden to supply the large number of mills?

Mr. PAINE. No; I do not.

The CHAIRMAN. Do you know how large a country Sweden is—the forest area?

Mr. PAINE. No; I do not.

The CHAIRMAN. Don't you have an idea that the country over there will be the same as it is here if they keep on multiplying the mills as they have?

Mr. PAINE. I should say it would. They are getting some of the wood from Russia now for the German mills.

Mr. STUTZ. Also from Finland. Finland is full of woods—beautiful woods.

Mr. PAINE. I think one tendency would be, in taking off the duty, to compel the mills who are anxious to take care of their supply, and husband it, to abandon that expensive policy, and get what they could out of it as quickly as possible.

The CHAIRMAN. That would keep the price of paper down and use up the Swedish forests, too. With the timber of our country rapidly becoming exhausted, is it not just as well to get some of our forest supply from other countries that have a superabundance?

Mr. PAINE. If you bring us into a desperate struggle with the Europeans, you would undoubtedly succeed in reducing prices, but would prevent any money being spent to conserve our supply here.

The CHAIRMAN. Take, for instance, your case, and I think you are entitled to great credit for what you are doing, but you are not planting any new forests.

Mr. PAINE. No; because nature is planting better than we can.

The CHAIRMAN. Nature is planting a great deal cheaper than you could, but not as well.

Mr. PAINE. Possibly not as well.

The CHAIRMAN. You are expecting to carry that forest until it reproduces, which itself is an expensive proposition, subject to a liability all the while, in order to make sulphite and soda fiber. Would you not be just as well off if at less cost you could produce the sulphite and soda fiber delivered here from Sweden, and make your paper from that?

Mr. PAINE. If we could buy Swedish pulp and shut down our own mills here and dismantle them, and buy Swedish pulp at less than it costs us to manufacture it, and be sure that would continue for a long time, we would be better off; but just as soon as you put these mills out of business here, up goes foreign prices, and you would be dependent on foreigners, and probably be worse off than we are now in the end. If you could guarantee that we get our pulp at less than it costs to make it here, it would be a business proposition.

The CHAIRMAN. But these mills which are accessible to cheap pulp wood would not be required to dismantle.

Mr. PAINE. Probably not all of them.

The CHAIRMAN. If you should dismantle your mill, buying your fiber at less than it costs you to make it, meanwhile your forests are growing up, and in a few years are valuable, and you can again manufacture sulphite and soda fiber at a small cost here.

Mr. PAINE. That is a delightful idea, but it would not work out.

The CHAIRMAN. You say it would not; why?

Mr. PAINE. In the first place, you could not take these mills, shut them down and hold them idle for a number of years. They would go all to pieces, and they are very costly. You have to rebuild a sulphite mill every eight or ten years. The repairs are very heavy.

The CHAIRMAN. It is not so expensive to keep up a soda mill?

Mr. PAINE. I have argued this point with both soda manufacturers and sulphite manufacturers. Some claim a soda mill disintegrates more rapidly than a sulphite mill, but there is not much difference.

The CHAIRMAN. Without regard for the moment to your personal interests, or rather the interests of your company, would it not, on the whole, be just as well for the country at large to exhaust the superabundant forest supply of other countries rather than annihilate our own forests?

Mr. PAINE. My answer to that would be that the entire pulp industry of the United States, using only about 1.6 per cent of the cut wood, should not be sacrificed to perpetuate that small percentage of forest area.

The CHAIRMAN. I suppose they would be looked at the same as lumber interests. You mean more than 1.6 per cent, by the way.

Mr. PAINE. Not much more.

The CHAIRMAN. Probably two or three times as much.

Mr. PAINE. It is not much more than 2 per cent. But the difference is very largely with the way lumber operations are conducted in regard to matured timber, which is not increasing in value a dollar. A forest that is matured is no better off a hundred years from now than it is at present. It is no detriment to cut it after it reaches this point. You know, Mr. Mann, that the spruce-wood forests in Maine, if allowed to grow up undestroyed, do not become very large anyhow. It is a small growth, and in Canada it is even smaller.

The CHAIRMAN. In Maine they tell us they do not get more than 14 inches. The northwest spruce is even smaller.

Mr. RYAN. Might I not suggest that you take up a line of question in regard to wood on Canadian lands?

The CHAIRMAN. What effect would it have on manufacturers of ground wood, from which pulp and paper, etc., is made, if they could get their pulp wood without any restrictions? As it is now, you can not get pulp wood from Ontario, from crown lands or public lands. Provinces own nearly all pulp-wood lands, and they will not export it. Quebec does permit its export.

Mr. PAINE. A large portion of the spruce wood comes from Canadian lands owned and controlled by American mills.

The CHAIRMAN. That is all from Quebec. A considerable portion of that is owned by mill companies outright. A large proportion, however, is only stumpage which they buy under certain restrictions.

Mr. MYERS. There is a large number of veteran claims in Ontario where they export the wood. You can go along the T. & N. O. R. R. and find a large amount of wood cut now.

The CHAIRMAN. Where do they bring it to? What section of the United States?

Mr. MYERS. I understand the mills at Erie have contracted for their entire supply for this year, possibly 50,000 cords. There is more or less of it taken out of the northern section of Ontario. At least that was what we were informed.

The CHAIRMAN. Where does that come from?

Mr. MYERS. It comes from north of Cobalt.

The CHAIRMAN. Who gets it out? Do you know?

Mr. MYERS. I could tell you. I have this information at the office. Palmer and Place get out considerable wood, and they are located at Earleton. Over on Lake Superior, the Northern Pulp Wood Company, located at Detroit, are also getting out considerable wood.

The CHAIRMAN. Are they getting wood from Ontario?

Mr. MYERS. Yes, sir.

Mr. PAINE. That does not come from Crown lands. It comes from veteran claims, of which whole townships are taken up. Take our mill at Willsboro, N. Y.; we have been operating there for twenty-five years, and there is more poplar wood there to-day than when we started.

The CHAIRMAN. Do you mean aspen?

Mr. PAINE. Yes, sir.

The CHAIRMAN. Is that the only wood you are using?

Mr. PAINE. Yes, sir.

The CHAIRMAN. I know of that poplar. It is of no use at all.

Mr. PAINE. It certainly is of use to us and is of great value to the farmers through that section. It grows all over the North.

The CHAIRMAN. It grows all over the Northwest. They hardly use it for anything.

Mr. PAINE. We are using it. We are using about 75,000 cords per year of that wood. This is what is known as the "Northern poplar," which is the aspen. It is a beautiful tree to look at. It is not unsightly.

The CHAIRMAN. It is a beautiful tree to look at when there is any wind, but it is a homely looking bark at the best.

Mr. PAINE. You seem to have a grudge against that tree.

The CHAIRMAN. I have seen it grow by the millions from the East to the Rocky Mountains. It will grow where nothing else will grow, and rarely grows large.

Mr. PAINE. Here is an industry where we are using wood which you say is worthless; at the same time the wood costs the three mills on the D. & H. from \$7.50 to \$8 per cord delivered, and that revenue goes to the farmers who cut the wood. It does not grow in large tracts. We make a contract with one farmer to deliver 25 cords, another farmer to deliver 50 cords, and so on, and he cuts the wood in the early spring when the sap starts to run, when the bark will spud easily, and then he spuds the bark off with a spudding knife, and the next winter he saws the wood and delivers it on snow, and is a source of income to all that section.

The CHAIRMAN. That was the main argument which was advanced at the time of the introduction of the McKinley law, that the cottonwood afforded farmers an opportunity to make money by furnishing pulp wood. That was many years ago and the amount of cottonwood being used is constantly decreasing.

Mr. PAINE. No; the production of soda pulp is constantly increasing.

The CHAIRMAN. Yes, and the quantity of poplar is decreasing.

Mr. PAINE. I think you are mistaken.

The CHAIRMAN. We have the data.

Mr. PAINE. I do not think that data is correct. There is more soda pulp being made to-day than ever and using all poplar.

Mr. RYAN. Then, can poplar wood be used all for that purpose?

Mr. PAINE. Yes; certainly.

The CHAIRMAN. Yet it is not. Would you be good enough to furnish us samples showing the various stages of the process of the manufacture of soda fiber in this mill; also disks of some of the trees, both here and the poplar trees at the other mill, that you use; disks cut across the wood?

Mr. PAINE. Yes, sir. With the bark on?

The CHAIRMAN. The bark makes no difference.

Mr. PAINE. In regard to these samples which you would like. I will make up a series of glass jars with removable corks—one glass jar containing chips, one containing pulp with liquor in it, and one with the liquor out, all the jars being labeled describing what they contain. We will send you the whole business.

The CHAIRMAN. I do not want any caustic soda in it unless you label it.

Mr. PAINE. I want to correct in your mind your opinion that there is not as much poplar wood used now as formerly.

The CHAIRMAN. That data is published by the Census Office, based upon the report on the pulp and paper manufacturers. I do not know of any better way of getting at it.

Mr. PAINE. I can show you why it is wrong. There is the Penobscot Fiber Company, in Maine; that mill is producing more soda pulp now than it ever produced. I do not say in the last two or three months, as business has been so bad, but right up to this depression they have produced more pulp and not used anything but poplar wood and basswood, but principally poplar. S. D. Warren have nearly doubled their output and they have two soda mills. They use only poplar, with a small percentage of bass. There are three mills on the D. & H. They are using poplar wood and they only use poplar and basswood. We have never used poplar wood at this mill, the Clarion, except what little we run across, but it does not grow abundantly here. I do not know that it will grow to any extent on these hills. It does farther south. Going down south, there is the Columbia Paper Company, at Buena Vista; that mill is using southern poplar. I do not know what name you give this, but all mills near Philadelphia are using southern poplar. They bring it up by boat. Dill & Collins, Jessup & Moore, Martin, William H. Nixon, Hamilton, and all soda-fiber mills use southern poplar and nothing else.

The CHAIRMAN. It is not the tulip tree?

Mr. PAINE. No; the southern poplar. All the northern mills are using northern poplar. It is termed by some quaking asp. It grows in the Adirondacks or in the South. From this you can see that the consumption of poplar is not decreasing.

DEPARTMENT OF COMMERCE AND LABOR,
BUREAU OF STATISTICS,
Washington, December 10, 1908.

Hon. JAMES R. MANN, M. C.,
House of Representatives, Washington, D. C.

SIR: Referring to the correspondence between you and this bureau in regard to the price of news-print paper in foreign countries, I inclose to you herewith copies of publications which were received during the summer upon that subject, hoping they do not reach you too late to be of service. There would seem to be an error in the reply of Mr. John P. Bray, American consul-general at Melbourne, Australia, in regard to the contracts for paper during three running years. The figures are given as they appear in his communication, but the reduction to United States money appears to be inaccurate.

Very truly, yours.

O. P. AUSTIN,
Chief of Bureau.

DEPARTMENT OF STATE,
Washington, July 10, 1908.

CHIEF CLERK,
Department of Commerce and Labor.

SIR: By direction of the Secretary of State, referring to previous correspondence on the subject of price of news-print paper in foreign countries, I have the honor to inclose herewith copy of a dispatch from Consul-General Bray, of Melbourne, Australia, dated May 15, 1908, supplementing his telegram previously transmitted to you.

I am, sir, your obedient servant,

W. T. CARR, *Chief Clerk.*

AMERICAN CONSULATE-GENERAL,
Melbourne, Australia. May 15, 1908.

The ASSISTANT SECRETARY OF STATE,
Washington, D. C.

SIR: I have the honor to acknowledge receipt of the following cablegram from the Department of State: "Telegraph market price in Australia news-print paper now and annually for past six years," and to confirm my reply thereto, as follows:

"American, £12 7s. 6d. [equivalent to \$60.22 per long ton, or \$53.76 per ton of 2,000 pounds]; English, £13 2s. 6d. [\$63.87 per long ton, \$57.03 short ton]. British tons c. i. f., past six years average pound less."

In addition, I may mention that the largest newspapers in this city have contracts for three years now running at the following prices: English, £12 11s. 6d. [probably should be £11 12s. 6d.] (\$56.57) [equivalent to \$50.51 per short ton] and £11 7s. 6d. (\$55.35) [\$49.42 for short ton]; American, £11 5s. 0d. (\$54.74) [\$48.89 for short ton] and £11 2s. 1d. (\$54.03) [\$48.24 for short ton].^a

I am, your obedient servant,

JOHN P. BRAY,
Consul-General.

DEPARTMENT OF STATE,
Washington, June 29, 1908.

The CHIEF CLERK,
Department of Commerce and Labor.

SIR: By direction of the Secretary of State, referring to previous correspondence, I have to inclose herewith, for the information of your Department, copy of a report by Consul-General Wynne, of London, England, dated the 1st instant, regarding news-print paper in Great Britain.

I am, sir, your obedient servant,

W. T. CARR,
Chief Clerk.

^a Insertions in brackets made by committee.

JUNE 1, 1908.

I have the honor to transmit herein, in duplicate, report regarding news-print paper in Great Britain.

I have the honor to be, sir, your obedient servant,

ROBERT J. WYNNE,
Consul-General.

NEWS-PRINT PAPER IN GREAT BRITAIN.

It is estimated that the amount of "news" paper made or marketed annually by independent firms in Great Britain is from 500,000 to 550,000 tons. No official figures are obtainable, and the foregoing estimate does not include the quantity manufactured by British newspapers possessing their own mills, nor paper costing over 3 cents per pound. Some journals use paper of a more expensive character, but the usual class for news print costs at present 2½ cents per pound, though prices fluctuate slightly from time to time.

There is no "combination" controlling the supply or price. The trade is purely competitive, and the conditions governing it are simply the questions of world supply, demand, and the prices of raw materials and chemicals.

The principal sources from which supplies are drawn are Scandinavia, Germany, and America, in addition to the home mills. Foreign competition, which, I am informed, is not so marked at present as formerly, is a considerable factor in the selling price.

Owing to the increased cost of wood pulp, there has been a general advance of 25 per cent in the price of news-print paper.

There are some 72 mills in England making "printing" and "news," 31 in Scotland; in Ireland only 1 of importance, viz., The North of Ireland Paper Mill Company.

It is estimated that not less than 8,000 tons of news-print paper are used weekly in the United Kingdom, of which about half is made by the home mills and half imported. Imports during the past year or two have shown a reduction, those from the United States having fallen off considerably. To quote the official classification American unprinted paper on reels fell from \$1,219,355 in 1906 to \$771,841 in 1907, and unprinted not on reels from \$600,866 in 1906 to \$457,246 in 1907.

The mills making paper for their own requirements are the Daily Telegraph mills and the Daily Chronicle mills. The principal center of the "news"-making industry in this country is in Lancashire.

It is interesting to note that developments in connection with the British paper trade have of late years been chiefly confined to the "news" section, the productive capacity by the introduction of new machines having been considerably increased.

That the dividends paid by mills making "printings" and "news" are far from satisfactory will be seen by the latest declarations as follows:

	Per cent.
John Annandale & Sons (Lintzford, Newcastle-on-Tyne).....	4
Bury Paper Making Company (Gigg Mills, Bury, Lancashire).....	7½
Darwen Paper Mill Company (Spring Vale Mill, Darwen, Lancashire).....	10
East Lancashire Paper Mill Company (Radcliffe, North Manchester).....	10
North of Ireland Paper Mill Company (Milltown Mills, Ballyclare, County Antrim).....	10
Olive Bros. (Woolford Mills, Bury, Lancashire).....	
Olive & Partington (Turn Lee Mills, Glossop).....	5
Owen, Thomas & Co. (Ely Paper Mills, Cardiff).....	5
Ramsbottom Paper Mills Company (Ramsbottom, North Manchester).....	10
Star Paper Mills Company (Feniscowles, North Blackburn).....	10

A great quantity of the paper is sold by paper merchants in England to the Colonies, part of it being made in this country, part passing through England, and part going direct from Norway.

I am indebted for data for this report to Mr. W. M. Jackson, of Hooper & Jackson, publishers, and to Messrs. W. John Stonhill & Co., proprietors of the Paper Trade Review.

ROBERT J. WYNNE, *Consul-General.*



PULP AND PAPER INVESTIGATION HEARINGS

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1908a

SELECT COMMITTEE OF HOUSE OF REPRESENTATIVES

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NO. 35

WASHINGTON

GOVERNMENT PRINTING OFFICE

1909

WOOD PULP, PRINT PAPER, ETC.

SELECT COMMITTEE ON PAPER AND PULP INVESTIGATION,
Tuesday, December 22, 1908.

The committee this day met, Hon. James R. Mann in the chair.

QUANTITY OF STANDING SPRUCE AND RATE OF GROWTH OF SPRUCE IN THE UNITED STATES.

STATEMENTS OF MESSRS. EDWIN A. ZIEGLER, R. S. KELLOGG, AND E. SUTERMEISTER, FOREST SERVICE, DEPARTMENT OF AGRICULTURE.

The CHAIRMAN. Mr. Ziegler, you have been doing some work for this committee by direction of the forester?

Mr. ZIEGLER. I have.

The CHAIRMAN. Along what lines has your work been in this connection?

Mr. ZIEGLER. It has been along the lines of compiling the measurements and the rate of growth of spruce in the United States, and also compiling the data on the estimated stand of spruce.

The CHAIRMAN. You may give us the results of your investigation so far as you have them in hand.

Mr. ZIEGLER. With regard to the rate of growth I have the results.

Few species of forest trees have received more local investigation than the red spruce (*P. rubens*), yet no attempt has been made to outline in a necessarily rough way the probable approximate total production and compare it with the total consumption in the lumber and pulp industries.

The CHAIRMAN. What do you mean by the "red spruce?" In the trade they seem to know of white spruce and black spruce.

Mr. ZIEGLER. Red spruce is *Picea rubens* and is found in the Adirondacks of New York, through Maine, New Hampshire, and Vermont, but is not very often found, not commonly at least, in Minnesota and Wisconsin, the western part of this spruce belt.

The CHAIRMAN. Now let us get at that. Red spruce is what in the Adirondacks and New England they know as the white spruce?

Mr. ZIEGLER. I think it is; yes, sir.

The CHAIRMAN. Is not that the same as what they know as white spruce in Minnesota and Wisconsin?

Mr. ZIEGLER. What we call white spruce is *Picea canadensis*, which is the common white spruce of Minnesota, but which is not very plentiful in New York and New England, where it, with red spruce (*P. rubens*), is often called "white spruce." There is some confusion, as you found, no doubt. Then they have the black spruce (*P. mariana*) out there also.

The CHAIRMAN. The black spruce and what they call the white spruce out there seems to be a different tree. At least I am not sure whether the difference is in the tree always or the difference is where it grows. They call the larger spruce white spruce, and the swamp spruce is the black spruce. Is that a different variety?

Mr. ZIEGLER. Black spruce and white spruce in Minnesota are different species.

The CHAIRMAN. But the large spruce out there, such as we have samples of here, is different from the same character of spruce which is known as the white spruce in New England?

Mr. ZIEGLER. I think the majority of the large spruce out there is the white spruce (*P. canadensis*), while the great bulk of the spruce of New England is red spruce (*P. rubens*), also sometimes called "white spruce."

The CHAIRMAN. What you refer to as red spruce is what they call the white spruce in the trade in the Northeastern States?

Mr. ZIEGLER. Yes; it is known by the name of red spruce in some localities and in some localities it is just designated as spruce.

The CHAIRMAN. In my work this summer I heard it referred to as white spruce.

Mr. ZIEGLER. That is the *Picea rubens*. The data possessed by the Forest Service bear on stand, yield, growth, and composition of the spruce forests only in specific localities, and for the larger facts of distribution and present stand the various state forest officers must be quoted as being the best authority.

Red spruce (*P. rubens*) is found in Maine, New Hampshire, Vermont, and the Adirondacks of New York, and the highest parts of the southern Appalachians (claimed to be "black spruce" here) notably West Virginia. The other spruces, such as black spruce (*P. mariana*) and white spruce (*P. canadensis*) are largely swamp trees of little comparative importance even in Michigan and Minnesota.

The CHAIRMAN. There are in northern Michigan and certainly in Minnesota very large spruce trees?

Mr. ZIEGLER. Yes, sir.

The CHAIRMAN. They make large saw logs, and they are not swamp trees?

Mr. ZIEGLER. They are more or less swamp trees, even though many large trees grow on moist soil outside of swamps. For instance, the tamarack out there grows mostly in the swamps; but it grows faster outside than inside. It is, nevertheless, a swamp tree.

The CHAIRMAN. It grows faster along the edge of the stream where it is wet, but we found lots of white spruce, and they differentiate between the two, the black spruce growing more rapidly in some places. The swamp spruce, which they call the "black spruce" or "swamp spruce," is a very different tree in its rapidity of growth. Whether the difference is caused by the location where it grows, I do not know; but I have been led to suppose that the black spruce never grew large in any place.

Mr. ZIEGLER. It seldom grows large.

Maine is the most important spruce State, with its 12,000,000 to 14,000,000 acres of forest land and spruce distributed in greater or less quantities over about 10,000,000 acres, with a total stand, according to the estimate by townships of Forest Commissioner Ring, of a little

over 21,200,000,000 feet, or an average of 2,100 feet per acre, 9 inches and over in diameter breast high.

The CHAIRMAN. That would be a little over 4 cords to the acre?

Mr. ZIEGLER. Yes, sir. We figure about 500 feet to the cord. New Hampshire has about 1,200,000 acres of forest containing spruce with an estimated stand of 4,764,000,000 board feet 6 inches and over, according to the forest survey made by the Forest Service.

The CHAIRMAN. That is your Forest Service?

Mr. ZIEGLER. Yes, sir; in cooperation with the State of New Hampshire.

No data are at hand for Vermont, but the spruce forests are less than in New Hampshire.

New York may have 3,000,000 acres of spruce-bearing forests in the Adirondack region with an estimate of 5,000,000,000 feet of spruce, but this is largely on the 1,415,000 acres of state preserve.

The CHAIRMAN. Let us see. You say there are 3,000,000 acres of spruce-bearing forests in the Adirondacks, of which about one-half belongs to the state preserve?

Mr. ZIEGLER. Yes, sir.

The CHAIRMAN. And the constitution of the State forbids the cutting of any timber upon that preserve at the present time?

Mr. ZIEGLER. Yes, sir.

The CHAIRMAN. Would that half in the state preserve include probably half of the 5,000,000,000 feet?

Mr. ZIEGLER. That would include more than half.

The CHAIRMAN. You may proceed.

Mr. ZIEGLER. For the purpose of this study, the spruce in West Virginia and other minor localities may be disregarded.

The CHAIRMAN. Is that correct; can it be disregarded?

Mr. ZIEGLER. The figures for the stand in West Virginia would be comparatively small and would not alter our total by any material extent. We have no data for the stand in West Virginia, except the area over which the spruce runs, and it is comparatively small compared to the other States growing spruce.

The CHAIRMAN. They cut a good deal of spruce for pulp wood, I am told.

Mr. ZIEGLER. There?

The CHAIRMAN. In West Virginia now.

Mr. ZIEGLER. What they are cutting now is not an index of what they can cut for any period.

I have stated that the red spruce extends all through the southern Appalachians on the high elevations.

Mr. KELLOGG. As I understand, the spruce grows in West Virginia above an elevation of about 4,000 feet. You have to go up to 4,000 feet before you get merchantable quantities, and that makes relatively a small area.

The CHAIRMAN. The reason I asked the question is because I had supposed either from observation or reading that spruce would not be found to any extent south of Washington, and not much this far south.

Mr. KELLOGG. It grows on the highest elevations clear down to North Carolina and Tennessee.

The CHAIRMAN. The North Carolina mill does not make any ground wood. It makes 100 tons of sulphite and 125 tons of soda fiber. For

the soda fiber they can probably use many kinds of hard wood and the sulphite is probably made from hemlock.

Mr. KELLOGG. They are getting some spruce at that mill.

The CHAIRMAN. They may be. They use that for sulphite, but they can use the hemlock for sulphite.

Mr. ZIEGLER. Summarizing, then, spruce is found over an area of almost 15,000,000 acres—

The CHAIRMAN (interrupting). That is in the East?

Mr. ZIEGLER. The red spruce I should have specified there, and almost 15,000,000 acres, with a stand of between 30,000,000,000 and 35,000,000,000 board feet (estimated to slightly different limits in different regions). This makes sufficient allowance for Vermont and the Lake States.

The CHAIRMAN. You say this makes sufficient allowance for the Lake States. What figures do you estimate would cover the spruce forests in Minnesota?

Mr. ZIEGLER. I think 1,000,000,000 feet. That is simply upon estimates which I have seen of standing timber.

Mr. SIMS. That will include all the pulp-making spruce?

Mr. ZIEGLER. Yes, sir; the standing spruce.

The CHAIRMAN. You may proceed.

Mr. ZIEGLER. Maine is, of course, by far the most important region of supply both in area and quantity.

Several studies in the growth of spruce in New York, New Hampshire, and Maine show somewhat different results, but agree in showing a much slower growth for the first 8 inches of diameter than for the growth from there on. I have here the figures showing the number of years required by trees of different diameters to increase 1 inch in diameter.

You will note that a 6-inch tree requires in a dense forest a larger number of years to grow 1 inch than a 12-inch tree, because the larger tree gets more light. When a tree becomes very large the number of rings per inch again increases. We have some specimens that show the reverse, but they are few compared with the number of measurements we have from the wood. We take all the trees on a cut-over area, giving us an average for that area.

The CHAIRMAN. I can readily believe that the statement may be true where you cut over the forest, cut out the larger trees so as to permit the smaller trees to have the sunlight, but that is not the normal condition of a forest.

Mr. ZIEGLER. It is the normal condition of a spruce forest in that region; what we call the "virgin forest."

The CHAIRMAN. Do you really believe that in the virgin spruce forest of trees growing thickly, the trees grow faster in diameter after they reach 8 inches in diameter than before?

Mr. ZIEGLER. Yes.

The CHAIRMAN. Where there is shade all over the trees?

Mr. ZIEGLER. No. Spruce is a tree which will grow in the shade when young and grow for years and that is the way most of the young spruce trees come up in the original forest. After they get up to a certain height they get their crowns in the direct sunlight, and they begin to grow faster. They put on more limbs, and there is a larger crown which is really the digestive apparatus.

The CHAIRMAN. It seems that is at least approaching the condition in Maine, where you made an examination?

Mr. ZIEGLER. Yes, sir. In New York the same. Everywhere we take all the trees showing normal development on an area, not taking one tree which may not have had sufficient light. We found that growth increased with the size of the tree until maturity is reached, and this is corroborated in each of these six studies. We have here six localities.

The CHAIRMAN. That is on the theory that when a tree is in the sunlight and it is grown up it ceases to grow tall. It merely grows larger around.

Mr. ZIEGLER. That is true.

The CHAIRMAN. When it gets to the point where it gets sunlight and can branch out, then it has a chance to expand in girth. Of course these samples we have here were not cut by foresters, but after all they were cut by the men who were actually furnishing the stuff.

Mr. ZIEGLER. If you had selected the trees yourself I think you could get a pretty good average. On the other hand, they may be picked-up samples.

The CHAIRMAN. These samples were cut from the trees that actually came to the mill.

Mr. KELLOGG. Cut at the mill?

The CHAIRMAN. I think so.

Mr. KELLOGG. Then you do not know what you have?

The CHAIRMAN. We do not. We know that we got the trees under the normal conditions that they came to the mill.

Mr. ZIEGLER. In this table the first column is Essex County, N. Y., and we had 461 trees measured. They were measured right in the woods, when the trees were cut. Santa Clara, Franklin County, N. Y., that is second; we had 1,593 trees measured in cut-over forest.

Mr. SIMS. Is it not a more reliable average of growth to take all the trees in an area and estimate from that than to take any number of samples that might be selected?

Mr. ZIEGLER. It certainly is for the rate of growth for the forest as it stands. Otherwise, if you take a number of trees which are fast growing and get a rate and apply it to a slow-growing area you get a faster increment than is really there.

Mr. SIMS. It is not reliable?

Mr. ZIEGLER. No, sir.

The CHAIRMAN. It is just as reliable as you can get by taking the average of the trees that come to a mill from a locality when you wish to ascertain the rate of growth of trees in that locality.

Now, let us get at what you have here. You have a table prepared showing the time required for spruce trees of various diameters to grow 1 inch in diameter?

Mr. ZIEGLER. Yes, sir.

The CHAIRMAN. That table is as follows:

Table showing time required for spruce trees of various diameters to grow 1 inch in diameter.

Present diameter, breast high.	Time required to increase 1 inch.				
	(1) Essex County, N. Y.	(2) Santa Clara Franklin County, N. Y.	(3) Nehalem Park, N. Y.	(4) Grafton County, N. H.	(5) Squam Mount- tain Town- ship, Pis- cataquis County, Me.
	Years.	Years.	Years.	Years.	Years.
3 inches.....	22				
4 inches.....	17				
5 inches.....	14	11			33
6 inches.....	12	10			29
7 inches.....	11	9			23
8 inches.....	10	8		12	19
9 inches.....	9	7	10	10	15
10 inches.....	8	7	8	10	14
11 inches.....	7	7	7	10	12
12 inches.....	7	6	8	10	11
13 inches.....	7	6	7	10	11
14 inches.....	6	6			11
15 inches.....	6		9		10
16 inches.....	6		9		11
17 inches.....	6		9		10
18 inches.....	6		9		11

(1) Four hundred and sixty-one trees measured. Page 31, Bulletin 30, Division of Forestry. "A working plan for township 40, New York State forest preserve," Hosmer and Bruce.

(2) One thousand five hundred and ninety-three trees measured in cut-over forests. Page 45, "The Adirondack spruce," Pinchot.

(3) Two hundred and ninety-eight trees measured in "original forest." Page 43, Bulletin 26, Division of Forestry. "Practical forestry in the Adirondacks," Graves.

(4) Study on the Pike Tract, Woolsey.

(5) One thousand one hundred and seventy-four trees measured. "Maine forest survey," Hosmer, page 92, Report of Forest Commissioner, Maine. 1902.

The CHAIRMAN. The basis for these figures is given below in the footnotes—the number of trees measured, who measured them, and so on.

Mr. ZIEGLER. I will explain. The first column is marked "Diameter, breast-high." That is 4½ feet from the ground.

The CHAIRMAN. You have columns 1, 2, 3, 4, and 5. In the first line you have under column No. 1 twenty-two years. What does that mean; that it takes twenty-two years for a tree 3 inches in diameter to add 1 inch?

Mr. ZIEGLER. Correct.

The CHAIRMAN. That does not mean that it is 22 years old when it gets to be a 4-inch tree?

Mr. ZIEGLER. No, sir.

The CHAIRMAN. But it takes twenty-two years to add 1 inch?

Mr. ZIEGLER. Yes, sir; under those conditions.

The CHAIRMAN. Under what conditions?

Mr. ZIEGLER. The forest conditions in Essex County, N. Y. These figures have been taken from "A working plan for township 40, New York State forest preserve," made by Hosmer and Bruce, page 31, Bulletin 30 of the Forest Service.

The CHAIRMAN. In your second line of figures you take a tree 4 inches in diameter and say it will take seventeen years for it to reach a diameter of 5 inches?

Mr. ZIEGLER. Yes, sir.

The CHAIRMAN. That is based on 461 trees measured in the New York State forest preserve?

Mr. ZIEGLER. Yes, sir. I have not stated how many of the 461 trees were 3 inches, 4 inches, and 5 inches, because it would have made the table very bulky.

The CHAIRMAN. There may have been only one tree 3 inches in diameter?

Mr. ZIEGLER. No, sir. I rejected all figures that did not have sufficient basis, and one tree would not be a sufficient basis.

The CHAIRMAN. That does not look to me as though it was a full statement. In other words, I should doubt whether that was correct, that it takes twenty-two years even in that location for a 3-inch tree to become a 4-inch tree. Mind you, I do not doubt the figures here. What I want to ascertain is whether the trees measured might not all have been stunted trees and not normal trees at all.

Mr. ZIEGLER. I think not. They were all taken by a forester who is now forester for Hawaii, Mr. Hosmer, and in selecting his trees (he made this growth table for a working plan) he selected representative trees for a second growth, as he was trying to arrive at a growth from which he could figure the financial returns, and certainly he would not take stunted trees for that purpose. The purpose of showing the tables in that form was to find out how large the trees that were left would be ten, twenty, or thirty years from now. In other words, he figured what the second growth would be ten, twenty, or thirty years after the first cut. You have some of the tables here taken from that same study.

The CHAIRMAN. Yes; we have a lot of tables. The trouble is to understand them without explanation by one who is not an expert.

Now, for instance, in the table you now have is a 9-inch tree, breast-high, and according to that in Essex County, N. Y., it would take nine years to become a 10-inch tree; in Santa Clara, Franklin County, N. Y., seven years to become a 10-inch tree; in Nehasane Park, New York, ten years to become a 10-inch tree, the same length of time in Grafton County, N. H., and in Squaw Mountain Township, Piscataquis County, Me., it would take fifteen years. That is the correct way to figure it?

Mr. ZIEGLER. Yes, sir. There is a difference, however, between column 2 and column 3. Column 2 is based on 1,593 trees in cut-over forest and column 3 is based on 298 trees in original forest.

The CHAIRMAN. Do the 1,593 trees measured in cut-over forest mean that they measured the stumps?

Mr. ZIEGLER. These measurements were all taken where the tree was cut, usually at $1\frac{1}{2}$ to 3 feet from the ground, and the measurements were reduced to breastheight.

The CHAIRMAN. As a matter of fact, in column 2 does that mean a second-growth forest?

Mr. ZIEGLER. Column 2 is where the trees may have started under the original conditions, and have been given more light by the cutting over of the forest, which would increase their growth. The original cutting was not a clean cutting, as they are cutting there at this time.

Now, those figures vary largely, because these trees have been growing in various degrees of shade, but after you pass the 9 or 10 inch point you will notice that they have a tendency to become constant, and those are the figures which we accept as the rate of growth under good conditions.

I go on with a little explanation on the next page, calling attention to the fact that spruce seems to be more rapid in growth in New York and to decrease in Maine.

The CHAIRMAN. Others tell me the reverse. Have you made an average count?

Mr. ZIEGLER. I think we have a great deal better basis than the other people.

The CHAIRMAN. I suppose that is true. Now proceed.

Mr. ZIEGLER. I say further that spruce on cut-over lands increases its growth to some extent, as shown in columns two and three of the preceding table, one growth taken in cut-over forest and the other in dense uncut forest. Regarding 12 inches as the average size of spruce on cut-over and virgin lands, an average growth of eight years to the inch might be accepted for the entire range.

The CHAIRMAN. You mean an average of eight years to the inch after you reach the diameter of 12 inches?

Mr. ZIEGLER. Yes; eight years for a 12-inch tree to grow to a 13-inch tree. You will notice in one column seven years, in another column six years, in another column eight years; in New Hampshire you get ten years, and in Maine you get eleven years. So it ranges from six to eleven years, and I have taken eight years as an approximate average. Hence, in eight years the 12-inch tree increases its volume 17.5 per cent, or about 2.2 per cent per year. Now, that 2.2 per cent is not for the entire life of the tree up to 12 inches in diameter, but after a tree is 12 inches in diameter it then increases at an average rate of 2.2 per cent per year in volume.

The CHAIRMAN. You are now speaking of volume, not diameter?

Mr. ZIEGLER. The volume.

The CHAIRMAN. Of course, when a tree is young it increases its diameter or percentage much more rapidly than it does when old?

Mr. ZIEGLER. Yes, sir; it does. I take this percentage at this point in order to apply it to the stands given later.

Accepting the rough estimate of 35,000,000,000 feet (some of which is mature and growing very slowly, but which is offset by the young growth coming up) as a measure of the growing stock, and applying the 2.2 per cent probable annual increase, a total annual increase of 770,000,000 feet would be indicated. If the small growing spruce (which has a slower rate of growth) is present in larger amount than necessary to keep up a constant stand of 35,000,000,000 feet the merchantable annual growth will later increase beyond 770,000,000 feet—provided the young growth is protected. On the other hand, if the young growth is deficient then as the present 35,000,000,000 feet decreases by excess cutting, the total annual growth will decrease. In other words, you will cut into your capital and as your capital decreases the interest will decrease.

The CHAIRMAN. Of course the situation is very different in different places. In the East as a rule spruce does not grow as clear spruce forests. It is scattered generally, is it not?

Mr. ZIEGLER. Mixed with white birch and other species.

The CHAIRMAN. Mixed with all sorts of things. They count 2 to 5 cords to the acre. Of course that is a very thin stand of spruce.

Mr. ZIEGLER. That is applied, however, to the entire area, cut over and uncut.

The CHAIRMAN. No, sir. They figure on about 2½ cords to the acre, I think, in Quebec. Of course in a dense spruce forest they often get 25 to 40 cords to the acre, and in Minnesota, in the Rainy River basin, they figure the whole of it at 10 cords to the acre, which is probably a fair estimate. When the forest growth is dense there is very little young spruce?

Mr. ZIEGLER. Yes, sir. A spruce forest or any forest can be too dense for any young trees to grow in its shade. However, spruce will grow in a denser shade than many other trees and recover when the shade is removed.

The CHAIRMAN. Of course, when the forest is dense there is very little undergrowth that is of any value at all. Now proceed.

Mr. ZIEGLER. The estimate for the entire spruce area above, including cut-over, culled, and virgin land would indicate an annual growth of possibly 50 board feet per acre per year. Studies in New York and Maine indicate an annual growth of spruce of from 40 to 100 board feet per acre per year on lands with 30 to 40 per cent spruce. That brings out the point you made about other species being in the forest.

The consumption of domestic spruce in 1907 in the eastern United States was over 1,300 million feet in lumber and 1,795,000 cords of pulp wood, or (allowing a cord to equal about 500 board feet) a total consumption of almost 2,200,000,000 feet of spruce. With an estimated annual production of 770,000,000 feet, it is clear that our spruce forests are being overcut.

The CHAIRMAN. Is that the report as to the domestic cutting of wood?

Mr. ZIEGLER. Yes, sir. We have deducted the imports. We use in all, I think, about 3,000,000 cords of spruce. Is not that right, Mr. Kellogg?

Mr. KELLOGG. Yes, sir. Mr. Mann has the exact figures. We used last year 2,700,000 cords of spruce altogether, two-thirds domestic spruce and one-third imported.

The CHAIRMAN. Now, of that 1,795,000 cords of domestic spruce pulp wood, 938,000 were in New England, 429,000 in New York, nearly 9,000 in Pennsylvania, and 250,000 in what you call the Lake States; that is, Michigan, Wisconsin, and Minnesota. As a matter of fact, do you know whether the Maine spruce forests are retrograding?

Mr. ZIEGLER. I do not; I can not state from personal experience.

The CHAIRMAN. I have been told that the Maine spruce forests were getting better on the average.

Mr. ZIEGLER. What do you mean by "getting better;" more timber?

The CHAIRMAN. Yes, sir.

Mr. ZIEGLER. I imagine those cut-over areas are not considered as forests any more.

The CHAIRMAN. Are you right about that?

Mr. ZIEGLER. In the minds of lumbermen, cut-over land is often not considered a forest, and they usually will abandon it.

The CHAIRMAN. Is that the case in Maine?

Mr. ZIEGLER. The paper companies are holding some land for a second cut.

The CHAIRMAN. They do not cut over the forests clean in Maine, as a rule, for pulp?

Mr. ZIEGLER. Some of them cut down to 4 inches.

The CHAIRMAN. A few of them may, for all I know, but some of the larger mills in Maine state to us that as a rule they do not cut below 10 or 12 inches. Some of them say that they do not cut below 14 inches. They are attempting to conserve their forests. You have here 938,000 cords cut in New England, and of course I suppose that means Maine and New Hampshire. That is a larger cut than anywhere else. That is over half of the cut in the United States?

Mr. ZIEGLER. Yes, sir.

The CHAIRMAN. It would be very interesting to know whether your theory is borne out in that particular place. You figure that they can only cut 770,000,000 feet, and that is 1,500,000 cords altogether?

Mr. ZIEGLER. Yes, sir; that includes lumber.

The CHAIRMAN. Without reducing the stock. We are cutting over 900,000 cords for pulp wood alone in Maine. How much is cut for saw logs does not appear at present.

Mr. KELLOGG. In Maine alone 528,000,000 board feet of spruce lumber was cut in 1907.

The CHAIRMAN. Considerably more than one-third of the total amount?

Mr. KELLOGG. Of the total amount cut in the Northern and Eastern States. There is some spruce cut in the West.

Mr. ZIEGLER. But a different spruce?

Mr. KELLOGG. Yes, sir.

The CHAIRMAN. Is there any land in Maine where they cut off the forest that is not being used to reproduce forests now?

Mr. ZIEGLER. You have areas up there that are very much injured as far as the reproduction is concerned—burned over a number of times—and that land is given up to poplar and birch, as the seed is scattered very readily by the wind; it is very light seed. After a severe burn the first to appear is the poplar, usually followed very closely by the birch. Those trees, especially the birch, will also sprout from the stump.

The CHAIRMAN. Of course, Maine has been the territory from which spruce has been drawn for a great many years.

Mr. KELLOGG. There can not be any doubt, I should say, that there is very much less standing timber now than when they first began to cut there, at any rate.

The CHAIRMAN. I presume that is true. There will always be less standing timber in any territory unless you increase the area that is in a forest after you commence to cut the original forest. The moment you commence to cut the forest there would be less timber standing, even under the best forest conservation methods.

Mr. ZIEGLER. If there is abundant timber now compared with twenty years ago, how would that explain the rise in the stumpage price up there?

The CHAIRMAN. I do not think there is any difficulty about explaining that in any event.

When it comes to cutting pulp wood, in some places they aim to cut only the fairly matured timber, in some places they cut it clean, in some places they cut spruce that never would make saw logs at all, and it would be quite useful if we could obtain information as to the average age of trees, the different sizes and different classes of trees under different forestry conditions.

Mr. ZIEGLER. We can not give you that because we have not had any forestry conditions; that is to say, scientific control of the forests, stocking, etc.

The CHAIRMAN. I do not see that that would make any difference, whether it is under scientific control. It does not grow any faster than under natural control under the same conditions.

Mr. ZIEGLER. Yes, sir; but we change the conditions. We can produce twice as much spruce per acre as is grown up there now.

The CHAIRMAN. Undoubtedly. I do not know that there is any difficulty about that at all. You can not produce twice the spruce per acre that is grown up in Minnesota?

Mr. ZIEGLER. On the average we can.

The CHAIRMAN. No. You might produce more than the second growth if the fires get in.

Mr. ZIEGLER. That is what they have been doing.

The CHAIRMAN. Well, they have not been getting very much into that swamp spruce territory, but when they drain it off, as they are now doing, very likely it will burn out. Of course you can plant spruce and produce a greater number of trees, trees that are profitable to grow, but which it is not profitable to plant at present prices.

Mr. ZIEGLER. By the time you are ready to cut the trees the prices will be all right and high enough.

The CHAIRMAN. I am inclined to agree with you, but that is something you and I will never know.

Mr. SIMS. They would never be harvested during your lifetime?

Mr. ZIEGLER. No; the majority would not be, that is true.

The CHAIRMAN. You are not able from the data you have to give us the average age of the different varieties of spruce or other trees grown under different conditions at different times?

Mr. ZIEGLER. We have no data under different conditions of management. I have figures for red spruce in Maine, which give the diameter on the basis of age.

The CHAIRMAN. Before you go into that finish this other statement and then we will take that up.

Mr. ZIEGLER. Yes, sir.

When it is recalled that our northern forests are on the average not more than half as well stocked as they should be (75 to 130 square feet basal area in virgin forests) and that spruce forms only about 30 per cent of the stand of the forest, it is seen that there is plenty of room to increase the annual production of spruce by proper methods to the point where production will equal the cut. I will explain that the basal area is the sum of the cross-sections of the trees grown per acre.

The CHAIRMAN. According to your figures, there would be from 75 to 130 square feet surface of stumps if the trees were all cut off?

Mr. ZIEGLER. Yes, sir; that is right. We find in German forests where they both reproduce by natural methods and plant in blanks

or the bare spots, so that they get in a normal forest about all the land will bear, they have anywhere from 200 to 250 square feet of stump cross section if it were all cut off, showing clearly that our forests, including all species, at the present time are not nearly as dense as they might be.

The CHAIRMAN. As to the density of a forest, do you think that a forest increases any more rapidly in actual measurement when it is really dense than when it is not so dense, provided, so far as lumbering is concerned, it is dense enough?

Mr. ZIEGLER. Your growth in amount of wood will increase with the density up to a certain point. After you pass that point by getting more trees per acre you are simply getting a slower growth per tree and not increasing the total wood growth.

The CHAIRMAN. Is not this the real situation—that where the forest is cut off, either in whole or in part, the tendency is, at first at least, for less valuable trees, which either scatter their seed easily or grow rapidly to take possession at the time?

Mr. ZIEGLER. That is correct.

The CHAIRMAN. Is not that the main difficulty?

Mr. ZIEGLER. Yes, sir; that is the main difficulty.

The CHAIRMAN. A forest usually grows thick enough?

Mr. ZIEGLER. If you include the brush. You will find when you get down to the ground that there is enough of a ground covering to absorb the sun's rays, but the trees are frequently not thick enough and occasionally too thick for rapid growth.

Mr. KELLOGG. The density you will get following a cut will depend very largely upon how closely you cut in the first place, and as to what opportunity you have left for the trees to reproduce.

The CHAIRMAN. You may proceed, Mr. Ziegler.

Mr. ZIEGLER. Doctor Fernow, in *Economics of Forestry*, estimates that pure spruce forests under proper management could produce at the rate of 1 cord (500 board feet) of pulp wood per acre per year. This estimate is abundantly high.

The CHAIRMAN. I should think it was.

Mr. ZIEGLER. We would have to figure, of course, on what might equal a perfect forest where you plant in all blanks and keep it dense. At this rate 4,400,000 acres of pure spruce forest under best management would be necessary to maintain the present consumption of 2,200 million feet of domestic spruce by the sawmills and pulp companies.

The CHAIRMAN. Do you accept that statement of Doctor Fernow's?

Mr. ZIEGLER. I do not know, if foresters were put in charge, whether they could bring a forest up to that degree of production in anything less than one hundred years.

The CHAIRMAN. Do you not know that they could never do it?

Mr. ZIEGLER. I do not know.

The CHAIRMAN. Let us reason it out. I have seen pulp wood forests this summer that would likely produce 50 cords of pulp wood to the acre, black spruce, many years old, growing so thickly that in places it was difficult to get in between the trees, and much denser and fuller than will ever be found where you have white spruce. Now, if you take that and cut off one cord a year it would have to completely reproduce itself in fifty years?

Mr. ZIEGLER. Yes, sir.

The CHAIRMAN. Is there any place on earth where it will do it, or begin to?

Mr. ZIEGLER. I do not think black spruce would. That is the slowest-growing spruce we have.

The CHAIRMAN. I take black spruce because we seem to get a larger yield of pulp wood from that per acre than we do from white spruce. Of course, black spruce itself will not grow so rapidly, but can you produce even white spruce within fifty or seventy-five years?

Mr. ZIEGLER. Eighty years for white spruce or red spruce (as we call it) in the East.

The CHAIRMAN. You can produce a fair-sized white-spruce forest in eighty years that is not grown dense, but you can not find any place where it grows dense where you can produce it in eighty years, and if you did that is only a little over half a cord an acre, and on the basis of 50 cords to an acre there is no place you can find where white spruce will yield 50 cords to an acre.

Mr. ZIEGLER. When Doctor Fernow speaks of 1 cord, he means 1 cord of wood in the tree, as I understand it. The bark has not been deducted, which amounts to 11 per cent.

The CHAIRMAN. If he does not mean 1 cord, that is another question. I am not thinking about rossed pulp wood.

Mr. ZIEGLER. Foresters can produce, and they are producing, in eighty years a great deal more than 50 cords per acre. That is not the limit that will stand on an acre.

The CHAIRMAN. Where?

Mr. ZIEGLER. Over in Europe, and I can quote white pine for New England which we regard as normal.

The CHAIRMAN. I expect you can find that where the trees are 150 and 200 years old and tower up in the air, but even 50 cords to an acre is a mighty good stand for that stuff, 200 years old and 150 years old, and it grows faster than spruce.

Mr. ZIEGLER. Yes, sir; a great deal faster. We have trees under 100 years old which will produce that.

The CHAIRMAN. It takes a mighty good stand——

Mr. ZIEGLER. It does.

The CHAIRMAN. To produce 25,000 board feet per acre of forest. a mighty good stand.

Mr. ZIEGLER. A 90-year-old stand in New Hampshire of white pine if fully stocked and dense——

The CHAIRMAN. What does this actually measure?

Mr. ZIEGLER. This is what they actually measure. If they were taken under management it has been demonstrated that when 90 years old they will have 220 trees to the acre with a mean diameter of 14½ inches, a mean height of 93 feet and an acre yield of 11,000 cubic feet, which would be 120 cords, including saw logs and firewood, approximately 41,000 board feet.

The CHAIRMAN. That is an actual measurement of what is on the ground?

Mr. ZIEGLER. Yes, sir.

Mr. SIMS. You mean that ¾ of an acre here and a quarter there added together would equal that?

Mr. ZIEGLER. No, sir; I can not pick out a thousand acres in a block like that; I can not pick out 500 acres in a block like that, because they are volunteer stands.

The CHAIRMAN. These were not planted by foresters?

Mr. ZIEGLER. No, indeed; it is a volunteer stand.

The CHAIRMAN. Do you know how far apart the trees would be on an acre, 220 to the acre?

Mr. ZIEGLER. I do not have that table here. They would be more than 10 by 10, though; considerably more. You can easily figure that out.

The CHAIRMAN. I understand. I thought probably you had it.

Mr. KELLOGG. There would be a tree for about every three-quarters of a square rod; more exactly, 14 feet by 14 feet.

Mr. SIMS. What did you say was the average diameter there for ninety years?

Mr. ZIEGLER. Fourteen and one-half inches.

Mr. SIMS. That includes the bark?

Mr. ZIEGLER. Yes.

The CHAIRMAN. I would be very glad to see a forest that would produce an 80-foot tree in ninety years, 14 inches in diameter for every three-quarters of a square rod. It certainly is not a normal forest condition.

Mr. ZIEGLER. It is what we call an ideal forest condition.

Mr. SIMS. That is purely accidental, as I understand it.

Mr. ZIEGLER. No, indeed; that is quality two. These stands are actually measured. White pine will grow in one locality faster than it will grow in another, and we called the best growth "quality one," the middle one "quality two," and the slowest one "quality three," and this is quality two; it is not even quality one.

Mr. SIMS. I understood Mr. Mann to challenge the fact that you could find a single acre under any conditions that will produce that growth in ninety years.

Mr. ZIEGLER. We can show him acres that will exceed that.

The CHAIRMAN. I doubt whether they can produce any condition that will show that much.

Mr. SIMS. You are doubting the age, I suppose?

The CHAIRMAN. Yes.

Mr. SIMS. Were they cut or measured?

Mr. ZIEGLER. They had been measured.

Mr. SIMS. Did you cut them to ascertain that they were 90 years old?

Mr. ZIEGLER. Yes; and we had records of some of the rest of them.

The CHAIRMAN. The rest was estimated.

Mr. ZIEGLER. There was no estimating. Every tree was on a plot—

The CHAIRMAN. That is still an estimate.

Mr. ZIEGLER. It is an estimate within, perhaps, 5 per cent for the individual tree, or possibly 10 per cent. For the number of trees it is an estimate within 5 per cent. Every measurement is an estimate within a very narrow margin.

The CHAIRMAN. They do it in the practical way?

Mr. KELLOGG. This was an actual measurement of every tree on the tract.

Mr. ZIEGLER. We took the tape and stretched it out on the ground and measured the exact size of the plat, and then got the diameter and height of each tree by actual measurement.

The CHAIRMAN. According to this report of the pulp-wood consumption in 1907—I am inclined to think it is inaccurate in that respect—they had the cords of cottonwood in 1905 at 10,000 and in 1907 at 66,000. I think that first figure must be a mistake as to cottonwood.

Mr. KELLOGG. That is all we had reported in that year. That is the best we can say. There may have been more.

The CHAIRMAN. Yes; that is true. The aspen grows farther north than the cotton wood?

Mr. KELLOGG. Yes.

The CHAIRMAN. Here, for instance, we have this Memphis, Tenn., mill making a cotton-hull fiber, with a capacity of 24,000 pounds per day. I would like to know what they use for pulp material.

Mr. SIMS. That evidently is what we call "linters" in cotton; that is, reginned cotton seeds. I do not know that it is that; I am only supposing it is.

The CHAIRMAN. They would use the hulls only?

Mr. SIMS. They must make it out of the fiber.

Mr. SUTERMEISTER. I think probably that is made from the lint taken from the seed, not from the hull itself.

Mr. SIMS. I did not mean the boll.

Mr. SUTERMEISTER. No; the lint that sticks to the seed after it is ginned.

Mr. SIMS. In the first place, the cotton is ginned ordinarily, then the cotton is put in the bales; then the seed, by the oil mills, is reginned, and that product is called "linters" in the market. It must be cotton seed that has not been used by the oil mills, which include a lot of short lint sticking to the seed.

Mr. SUTERMEISTER. That is it.

Mr. SIMS. But the oil mills separate the hard substances in the seed from the kernels. That hard substance is called "hulls."

Mr. SUTERMEISTER. That is right.

Mr. SIMS. Possibly there is paper made out of that hard substance called "hulls." Those hulls are very fine feed for cattle.

The CHAIRMAN. They are said to have been used a year or so ago—whether they are using it now, I do not know—bagasse, if that is the correct word, for paper.

Mr. SUTERMEISTER. I have heard of several mills that have started to, but I have never seen any paper made out of it on a commercial scale.

The CHAIRMAN. I was told the other day they were shipping pulp to Europe made in New Orleans, and I wondered whether it was correct or not.

Mr. SIMS. Made out of what?

The CHAIRMAN. The sugar cane bagasse—what is left from the refuse of the cane.

Mr. SIMS. That is similar to making it out of cornstalks.

Mr. SUTERMEISTER. It is very similar to making it out of cornstalks.

The CHAIRMAN. They have to get the sugar cane there, anyhow.

Mr. SIMS. I say, it is a similar pulp to cornstalk pulp.

Mr. SUTERMEISTER. Almost identical, yes.

The CHAIRMAN. What about the spruce forests in the West?

Mr. ZIEGLER. We have not compiled figures on them. We have Engelmann spruce in the Rocky Mountain region, the Sitka spruce, sometimes called tide-land spruce, along the Puget Sound region.

The CHAIRMAN. They say there is a considerable quantity of spruce in Idaho. Do you know anything about that?

Mr. ZIEGLER. That is the Engelmann spruce; yes.

The CHAIRMAN. And large quantities of it in Washington?

Mr. ZIEGLER. There are considerable quantities in Washington. However, that is a different spruce; that is the Sitka spruce.

The CHAIRMAN. And large quantities of it in Alaska?

Mr. ZIEGLER. The same thing; yes, along the coast.

The CHAIRMAN. Does anyone know how much there is up there, or has anyone any idea of it?

Mr. ZIEGLER. We have an estimate on it, made from the entire timber stand up there. Whether they segregate the different species or not I do not know.

Mr. KELLOGG. They do not. The estimate of the entire stand of merchantable saw timber in Alaska is about 77,000,000,000 feet, and the bulk of it is spruce.

Mr. SIMS. What variety of spruce did you call it?

Mr. ZIEGLER. Sitka.

Mr. SIMS. What does that mean?

Mr. ZIEGLER. We do not have it in the East here at all.

Mr. SIMS. What I am trying to get at is how to record it.

The CHAIRMAN. It is a different variety of spruce, as the Norway spruce is different from ours, but as far as making paper is concerned it is the same thing.

Mr. KELLOGG. As near as we can get at it, the stand of Engelmann spruce would not be over two and one-half billion feet in the West.

The CHAIRMAN. That is the Idaho spruce?

Mr. KELLOGG. Yes; in Idaho and Colorado.

The CHAIRMAN. The spruce on this side of the Rocky Mountains, you mean?

Mr. KELLOGG. No; on the Rocky Mountains themselves.

The CHAIRMAN. On the Rocky Mountains?

Mr. KELLOGG. Yes. There are probably two and one-half billion feet of that.

The CHAIRMAN. On both sides of the divide?

Mr. KELLOGG. Yes; from Colorado to Idaho, and from Idaho to New Mexico and Arizona.

The CHAIRMAN. I have seen considerable quantities of spruce away up in the mountains in Colorado.

Mr. KELLOGG. That is probably the blue or the Engelmann.

The CHAIRMAN. No, I do not think that is blue spruce, because that is easily noticeable.

Mr. KELLOGG. It is mostly Engelmann spruce that occurs in commercial quantities.

Mr. SIMS. Will it be practicable to use it for commercial purposes for paper making?

Mr. KELLOGG. In a great many cases it is not at present, because it is not very accessible, and it is a long way from either a market or

factory sites, and in a great many cases the water power is not available.

The CHAIRMAN. Is not the main difficulty that it is very large, in Idaho being used for lumber purposes?

Mr. KELLOGG. Yes.

The CHAIRMAN. There are a number of large sawmills out there now.

Mr. ZIEGLER. Yes. There is another spruce that you may have in mind. That is Douglas spruce, which is not really a spruce, but is a fir.

The CHAIRMAN. Oh, yes; I know the Douglas fir.

Mr. KELLOGG. As to how much Sitka spruce there is on the Pacific coast, we have not any figures at the present time.

The CHAIRMAN. According to your estimate there, is there more spruce in Alaska than there is in the United States?

Mr. KELLOGG. There may be; I would not attempt to say offhand whether half of that total stand in Alaska is spruce or not. I would want to look that up before I made a definite statement. The principal kinds of timber in Alaska, as I understand it, are spruce and hemlock.

Mr. SIMS. I thought Alaska was too cold for timber.

Mr. KELLOGG. Oh, it is pretty warm in southern Alaska.

The CHAIRMAN. Is there a considerable quantity of hemlock up there?

Mr. KELLOGG. I think there is of the western hemlock.

Mr. ZIEGLER. They have a good deal of what they call "black" hemlock, which is poorer than the western hemlock.

The CHAIRMAN. Do you know whether that would be available for use in making sulphite pulp?

Mr. KELLOGG. So far as we know, I think it would make a good pulp. It is a question whether it is accessible or not. A lot of it probably is not.

Mr. ZIEGLER. The western hemlock on Puget Sound is accessible. They are marketing it now.

The CHAIRMAN. That is largely big timber, is it not?

Mr. ZIEGLER. Yes.

The CHAIRMAN. More likely to be used for lumber than it is for pulp?

Mr. KELLOGG. The western hemlock in the United States is big timber; yes.

The CHAIRMAN. And the spruce also?

Mr. KELLOGG. The Sitka spruce is; the Engelmann spruce is not so large.

The CHAIRMAN. We have been told repeatedly that the spruce out in Idaho would run 2 and 3 feet in diameter—a great deal of it.

Mr. KELLOGG. You will get some of it that will.

Mr. ZIEGLER. The Engelmann spruce runs up to 3 feet in diameter, but the larger part is under 3 feet.

Mr. ZIEGLER. We have a table for Piscataquis County, Me., a survey made in 1902 by Mr. Hosmer, which shows that the spruce, from measurements made on 274 stumps right after the trees were cut, had at fifty years only a diameter of 1.1 inches, showing clearly that that stand came up under the shade of a preceding forest; at one hundred years it was 3.2 inches in diameter, and at two hundred years

it was 9.7 inches in diameter. The trees ranged from 112 to 300 years old. In contrast with that we have another rate of growth here made for the Great Northern Paper Company, also in Maine, showing in fifty years a diameter of 5.3 inches, and in seventy years a diameter of 6.8 inches. That is as far as that investigation was carried. It was on second-growth spruce which came up under better light conditions, and which we might call, perhaps, a normal growth for spruce, where the land is pretty thoroughly cut over. The basis for the second rate of growth is thirty-nine 4½-foot stumps. Those trees were cut right at breast height for the purpose of this analysis, ranging from 49 to 197 years old. They evidently had some trees in there of considerable age. That is all we have showing the diameter at a given age. These other rates of growth were compiled in a different manner. Instead of counting all the rings on the stump, they counted the last 30 rings on the stump for different sized trees. They counted them for 3, 4, 5, and 6 inch trees, and from that partial count they got the data I have given you in that table, which gives the number of years required to grow an inch for different size trees. That was the form the early investigations took, and it is in that form that most of our data has been collected.

The CHAIRMAN. In Maine there must be a number of second-growth forests, of course, many forests where the big timber was cut out years ago. There ought to be a good many where it is of second-growth timber. I should think it would be possible to ascertain, under actual forest conditions up there, the growth of the timber. Of course, we all know that a tree coming up in a shade is one thing, and coming up on the land where there is a little forest is another thing. It is an entirely different proposition where it is all cut over and the trees come up thick again. I should think it would be easy to ascertain fairly accurately in reference to the age of trees—different timbers under different conditions.

Mr. ZIEGLER. It would be if that was the object of the study. These studies, as I said before, were made for other purposes.

The CHAIRMAN. They are all made for the purpose of arriving at one result, and that is information as to the growth of trees.

Mr. ZIEGLER. Correct. I would say that this second rate of growth I have just quoted, showing the 5.3 inches at fifty years and the 6.8 inches at seventy years would portray those conditions. That is where the areas had been cut over pretty thoroughly and the trees did not come up in the shade. I would not say cut over clean. It was cut over as the Great Northern Paper Company was cutting over its lands. That was back in 1902.

The CHAIRMAN. What is the prevalent forester's opinion to-day as to the method of reforestation, to cut clean or to cut out only the large timber?

Mr. ZIEGLER. I should say that that depends entirely on a number of circumstances, and especially the species in the forest. Some shallow-rooted species, like spruce, in exposed situations must be cut clean, because if a few seed trees of large size are left they will likely be blown down by the wind and lost. In protected situations groups or strips of seed trees may be safely left to seed up the ground. No forest can be handled according to one inflexible method, but the method must be varied here and there according to topography, species, character of seed, ability to sprout from stumps, etc.

The CHAIRMAN. What is the method followed now in German forests? Do they not generally cut strips clean?

Mr. ZIEGLER. The usual way is to cut clean there and plant. The best success is attained that way.

The CHAIRMAN. Is it all planted or partly reseeded?

Mr. ZIEGLER. In some places they practice the natural method of reseeded, leaving seed trees in groups, strips, or, if very firmly rooted, in scattered stand.

The CHAIRMAN. Have you any estimate as to the cost of replanting?

Mr. ZIEGLER. In this country?

The CHAIRMAN. Anywhere.

Mr. ZIEGLER. We have estimates of the cost of replanting; yes. They figure that white pine may be replanted at \$10 an acre. I think they usually figure on setting out trees 6 feet by 6 feet, which would take about 1,200 trees to the acre. That includes growing your trees.

The CHAIRMAN. Is there any place in this country where that has been tried?

Mr. ZIEGLER. Planting?

The CHAIRMAN. Planting white pine 6 feet apart at \$10 an acre.

Mr. ZIEGLER. I do not know whether they figure the cost or not. We have examined plantations of white pine in New England that were cut. We know what they are yielding.

The CHAIRMAN. Where they plant that way, do they have to prepare the ground in advance?

Mr. ZIEGLER. They do not, though the growth is better in prepared ground. Forest soil is frequently too expensive to plow or grub up before planting. However, I am not expert on forest planting.

Mr. KELLOGG. Mr. Ziegler is giving you what is the common knowledge among the members of the Forest Service.

Mr. ZIEGLER. I have been engaged in planting, but of late years my work has not been planting. We have set out trees in the sand hills of Nebraska for, I think, about \$2.50 a thousand under the best circumstances, but there the planting was very easy.

The Scotch pine is growing out there, and we have jack pine trees out there as high as a man that were planted in 1903.

The CHAIRMAN. I wish you could plant that whole country.

Mr. ZIEGLER. This is an experiment. We failed with western yellow pines, planting the seedlings from the nursery out on the hills. They are making a second attempt, planting the transplants.

The CHAIRMAN. That makes a rather expensive system.

Mr. ZIEGLER. More expensive than the other, although in that locality it can still be done within reason.

The CHAIRMAN. Ordinarily you would have to prepare the ground somewhat unless you have very rocky ground, and then not very fast planting.

Mr. KELLOGG. As a general proposition, some preparation of the ground is necessary, if it is a prairie country like Illinois. If it is a sandy country, like the sand hills of Nebraska, it will blow away after you have got it plowed. I think some white-pine planting has been done, setting them out without any preparation of the ground.

(Thereupon, at 1.30 o'clock p. m., the committee took a recess until 2 o'clock p. m.)

Mr. Ziegler submitted the following table:

RED SPRUCE, DIAMETER GROWTH, PISCATAQUIS COUNTY, ME.^a

Age.	Diameter breast high.	
	Coming up under shade. ^b	Coming up with fair light conditions, Spruce slope, quality n. ^c
	Inches.	Inches.
20 years.....	0.1	0.6
30 years.....	.6	2.4
40 years.....	.8	4.1
50 years.....	1.1	5.3
60 years.....	1.5	6.2
70 years.....	1.8	6.8
80 years.....	2.2	.....
90 years.....	2.7	.....
100 years.....	3.2	.....
110 years.....	3.7	.....
120 years.....	4.3	.....
130 years.....	4.9	.....
140 years.....	5.5	.....
150 years.....	6.2	.....
160 years.....	6.9	.....
170 years.....	7.6	.....
180 years.....	8.3	.....
190 years.....	9.0	.....
200 years.....	9.7	.....

^a Maine Forest Study, R. S. Hosmer, 1902. Great Northern Paper Company, H. Grinnell, 1902.

^b Basis: Decade measurements on 274 1-2-foot stumps 112 to 300 years old.

^c Basis: Decade measurements on 39 4.5-foot stumps 49 to 197 years old.

AFTERNOON SESSION.

TUESDAY, December 22, 1908.

The committee reconvened at 2 o'clock p. m., Hon. James R. Mann (chairman) presiding.

STATEMENT OF MR. E. A. ZIEGLER—Continued.

The CHAIRMAN. I collected a number of cross sections and gave them to you to mark the ages and diameters. I have one here marked "No. 2," on which you have marked the number of years of growth to a certain diameter, 38 years of growth. That is what that is intended to represent, is it not, 38 years of growth [indicating sample]?

Mr. ZIEGLER. Yes, sir.

The CHAIRMAN. To that diameter?

Mr. ZIEGLER. To that diameter; that is correct.

The CHAIRMAN. Have you the diameter there?

Mr. ZIEGLER. I have the diameter of this section here as 3.35 inches, but I have it marked "8-D," which is off the same piece as No. 2, and I have given the age as 40 years.

The CHAIRMAN. And have you the diameter marked on No. 2?

Mr. ZIEGLER. I have not. I have this section here which I took as indicative for the four pieces.

The CHAIRMAN. On No. 8 you have, then, marked the age of 40 years at a diameter of how much?

Mr. ZIEGLER. 3.35 inches.

The CHAIRMAN. 3.35 inches. That is a black spruce taken from the mill at Watab, Minn.

Mr. ZIEGLER. Yes; it is identified as black spruce.

The CHAIRMAN. No. 6 is also a black spruce obtained at the Watab mill. You have here the age marked at 92 years for what diameter?

Mr. ZIEGLER. That is identified as black spruce, and it gives the diameter at 3.58 inches; that is the average diameter.

The CHAIRMAN. No. 9 is also a black spruce from the same mill.

Mr. ZIEGLER. That is 101 years old, and 5 inches in diameter. That is inside of the bark, of course; the bark is not included.

The CHAIRMAN. Part of these specimens have been rossed, but this No. 9 has not been rossed or peeled. That is the actual age?

Mr. ZIEGLER. Of the section.

The CHAIRMAN. Of the section?

Mr. ZIEGLER. Yes.

The CHAIRMAN. Of No. 12 you have the age marked at 75 years.

Mr. ZIEGLER. The diameter of that is 7.45 inches, and it is identified as a white spruce.

The CHAIRMAN. Do you really think it is a white spruce?

Mr. ZIEGLER. I can not tell the two species apart in that shape. The dendrologist identified it with the microscope as a white spruce. Whether the difference between them is enough to identify it absolutely as a white spruce instead of a black spruce, I do not know.

The CHAIRMAN. That also came from the Watab mill. I rather think it is the same. It might be a white spruce, I suppose. No. 15 is from the same mill. The age is marked at 63 years.

Mr. ZIEGLER. That is also identified as a white spruce, and has a diameter of 10.46 inches.

The CHAIRMAN. The age of No. 17 is marked as 49 years. That was a specimen taken from the Muskeg, not from the mill.

Mr. ZIEGLER. That is identified as black spruce. It is 1.15 inches in diameter.

The CHAIRMAN. No. 18, also was cut from the Muskeg. That is marked as being 39 years old.

Mr. ZIEGLER. That is identified as a black spruce, with a diameter of nine-tenths of an inch.

The CHAIRMAN. No. 19 is also cut from the Muskeg. The age is 113 years.

Mr. ZIEGLER. That is identified as black spruce. The diameter is 2.48 inches.

The CHAIRMAN. No. 21 was obtained at the mill of the Northwest Paper Company, at Cloquet, Minn., age, 79 years.

Mr. ZIEGLER. That is identified as a black spruce, and the diameter is 3.7 inches.

The CHAIRMAN. No. 22 is also from the Northwest Paper Company. The age is marked at 80 years.

Mr. ZIEGLER. That is identified as black spruce, with a diameter of 5.08 inches.

The CHAIRMAN. No. 24 is from the Northwest Paper Company. The age is 74 years.

Mr. ZIEGLER. No. 24 is identified as a white spruce, with a diameter of 8 inches.

The CHAIRMAN. No. 25 is from the same mill, with the age marked at 101 years.

Mr. ZIEGLER. That is identified as a white spruce, with a diameter of 9.9 inches.

The CHAIRMAN. No. 26 is from the Northwest Paper Company, with the age marked at 41 years.

Mr. ZIEGLER. That is identified as a white spruce, with a diameter of 11.1 inches.

The CHAIRMAN. I take it that that has made an unusually good, rapid growth.

Mr. ZIEGLER. An unusually rapid growth.

The CHAIRMAN. No. 27 was obtained from the Wolf River Paper and Fiber Company of Wisconsin, which obtains most of its pulp wood from the farmers in that locality, and this may have come from this source. You have only counted out on that piece as far as 37 years. What is the diameter at that age?

Mr. ZIEGLER. 4.8 inches.

The CHAIRMAN. That is one of those pieces that Mr. Sims was wondering about, where it has grown nearly all on one side.

Mr. ZIEGLER. Yes.

The CHAIRMAN. No. 28 is also from the Wolf River Paper and Fiber Company of Wisconsin. You counted out as high as 57 years.

Mr. ZIEGLER. That is identified as a black spruce, and the diameter is 4.1 inches, as far as it was counted.

The CHAIRMAN. It is identified as a black spruce, but I doubt whether it is correct.

Mr. ZIEGLER. What do you think it is?

The CHAIRMAN. White spruce. I do not think they have any black spruce over there. I suppose it is very difficult to distinguish a mere cross section.

Mr. ZIEGLER. Yes; I think perhaps one of the most distinguishing features is the rate of growth.

The CHAIRMAN. Yes. This has grown very slowly. You have this marked "Suppression or injury," after it reached 57 years. Undoubtedly it grew very slowly after that time.

Mr. ZIEGLER. Yes; there was some cause for the slow growth beyond the fifty-seventh ring. We do not know what it is, of course. Suppression would do it. The breaking off of the top by storm or snow or something of the kind would do it. Something in the condition of the ground might do it. Evidently there was some sudden cause to change the rate of growth from a rapid to a very slow one. Suppression, as a rule, is a more gradual change. It comes on gradually, while from accidents like the breaking off of the top or something like that there would be a more sudden change. Of course, it is speculation as to what it was, but it is evident that there was some change of the conditions.

The CHAIRMAN. It may have lost a limb.

Mr. ZIEGLER. Possibly.

The CHAIRMAN. Because on the other side it never did grow very rapidly. There is not very much difference.

Mr. ZIEGLER. The suppression, or whatever it was, really would be marked back there at 57 years.

The CHAIRMAN. Are you sure that is a spruce?

Mr. ZEIGLER. That is what it was identified as.

The CHAIRMAN. On No. 29 you have counted out as high as 99 years; and what was the diameter at that age?

Mr. ZIEGLER. No. 29 is identified as a larch—tamarack. The diameter of that at 99 years is 4.15 inches.

The CHAIRMAN. I should question that identification, too. I do not believe they have any larch over there.

Mr. ZIEGLER. They have larch in Wisconsin. In this particular region, I do not know.

The CHAIRMAN. I thought we had a memorandum that showed what all these were. Of course, these were all rossed when we picked them out, but I am inclined to think that none of these were larch. No. 39 you counted out as far as 49 years of age.

Mr. ZEIGLER. It was also identified as larch, with a diameter at 49 years of 3 inches.

The CHAIRMAN. We did not have a stenographer there, but Mr. Stafford made some notes. I do not believe they have any tamarack in that mill. What is No. 32?

Mr. ZEIGLER. That is identified as a white spruce.

The CHAIRMAN. You only counted out as far as 40 years. What was the diameter on the basis of 40 years.

Mr. ZEIGLER. 6.8 inches.

The CHAIRMAN. It grew much more slowly after that time, this specimen did, until it reached a greater age, and then it commenced to grow more rapidly again. No. 33 is also from the Wolf River Paper Company. You counted out on that as far as 113 years.

Mr. ZIEGLER. No. 33 was identified as a larch, with a diameter at 113 years of 10.06 inches.

The CHAIRMAN. I am inclined to think it is a white spruce, notwithstanding the identification. Those people generally know the difference, easily enough, between spruce and tamarack, and I think they do not aim to use tamarack in that mill.

Mr. ZIEGLER. I find, however, that in the lumber concerns jack pine often passes as white pine in the lumber pile.

The CHAIRMAN. Oh, yes; but they do that purposely.

Mr. ZIEGLER. They would not acknowledge it.

The CHAIRMAN. They acknowledge it to us right along; they find good jack pine mixed in with white pine, and they sometimes run it in as white pine.

Mr. ZIEGLER. But lots of the men on the outside by examining the grain could not as easily tell a larch, at least, from a spruce, as they could a pine from a spruce.

The CHAIRMAN. Of course when all of these samples go to the mill they have the bark on them.

Mr. ZIEGLER. Yes.

The CHAIRMAN. These are all samples we picked up in the mill that had been rossed in the mill; but as they go into the mill they all have their bark on.

Mr. ZIEGLER. Would they, however, reject a piece of tamarack if it came along, since it contains no pitch?

The CHAIRMAN. I do not know that they would, but they are rather particular at this mill about what they use, and they get their spruce from the people in that locality as a rule.

Mr. ZIEGLER. If you wish, I can take back those specimens that you are doubtful about, and I can have them put under the compound microscope. The cells of the wood will tell the difference between a spruce and a larch and give an absolute identification. Between the different species of spruce there is more difficulty, because the structure there is so similar.

The CHAIRMAN. I do not know that it is very important, except to determine the use of the larch for ground wood. What do they make there at the Wolf River Mill? They make sulphite, four grinders: ground wood and sulphite. I think we got those from the ground-wood mill. However, I am not absolutely certain.

Mr. KELLOGG. We would be very glad to examine these again, and be definite about it.

The CHAIRMAN. I think probably I will write to the man there and ask him if he knows he is using larch?

Mr. ZIEGLER. He might not know that an occasional piece goes through. He might say that he is not, and yet there might be an occasional piece go through.

The CHAIRMAN. That might be, but there are three specimens here marked as larch that we picked up at random at the mill.

Mr. ZIEGLER. That is rather a large proportion of larch if they are not using larch.

The CHAIRMAN. Here is a piece picked up at Johnsonburg in a forest that had never been cut over, so they stated. This is No. 35. It was a small tree under large trees. You have it marked dogwood. When we cut it we supposed it was a hard maple. I do not think it is very important. At any rate, the age is marked at 84 years, with a diameter of what?

Mr. ZIEGLER. Four and four-tenths inches.

The CHAIRMAN. It is a mighty pretty piece of wood, whatever it is.

Mr. ZIEGLER. They use dogwood for bobbins, I think, and for furniture, occasionally, when it gets large enough.

The CHAIRMAN. No. 36 is a yellow birch which was cut in clear second-growth timber where evidently the original forest had been quite thoroughly cleared off, and it was growing quite dense; that is, not the birch, but the trees of different varieties. You have the age of that marked as 22 years.

Mr. ZIEGLER. The diameter was 3.1 inches. That was identified as yellow birch.

The CHAIRMAN. That we cut at Lanigan Run, Johnsonburg. No. 35 we cut under the shade at Buck Run, Johnsonburg. Thirty-seven is a beech.

Mr. ZIEGLER. I have 37 down here as a beech.

The CHAIRMAN. It was cut under the same conditions as No. 36.

Mr. ZIEGLER. That is 34 years old; 2.6 inches in diameter.

The CHAIRMAN. No. 38, hard maple, 23 years old. What was the diameter of that?

Mr. ZIEGLER. 2.4 inches. We identified it as hard maple.

The CHAIRMAN. Thirty-nine is 20 years of age; hemlock cut under the same conditions as No. 36. Is that what you have it?

Mr. ZIEGLER. No. 39 is identified as hemlock, 20 years old, 1.8 inches in diameter. No. 40 is identified also as hemlock, 20 years of age, 1.6 inches in diameter.

They came out the same number of years. It looks as if they might have come from the same tree at slightly different points. Of course they could not have been adjacent, because they are slightly different in size.

The CHAIRMAN. Then they did not come out of the same tree, because I cut them down. I just took a small piece out of the tree. I cut No. 40 down. That was growing in low ground along the west branch of the Clarion River at Johnsonburg. That is 20 years of age. But the other, No. 39, was a hemlock, which was growing in the second-growth forest with the birch and beech and hard maple samples.

This is 20 years of age. It was growing in a fairly thick second-growth forest, and it was cut down where the man who was with us was quite certain when we looked at that forest that it could not be over 8 or 10 or 12 years of age. I guessed it to be more. We had a man with us with an ax, so that when any dispute would arise as to the age of any one of these trees it was cut down; and I wanted to get the age of a hemlock tree there growing under those conditions and I had him cut that down for that purpose. Then afterwards I cut down the hemlock myself and just took a small piece out of it.

We have a lot more of these samples here. Could you send some one up here to go over these?

Mr. ZIEGLER. Yes. You simply want the rings counted and the diameters measured as we have done with these others?

The CHAIRMAN. Yes.

Mr. ZIEGLER. You want no identification?

The CHAIRMAN. No. These are all marked as to what they are, and I guess they are identified sufficiently.

Mr. KELLOGG. It says on these samples "spruce," but it does not attempt to say what kind of spruce they are.

The CHAIRMAN. No. But they are all marked as to where they are from. Most of them are from Canada, I think. I guess they would all be the red spruce.

EXPERIMENTS WITH CORNSTALKS AND OTHER ANNUALS.

STATEMENT OF MR. EDWIN SUTERMEISTER.

The CHAIRMAN. You are connected with the Bureau of Forestry?

Mr. SUTERMEISTER. Yes, sir.

The CHAIRMAN. What is your position?

Mr. SUTERMEISTER. I am an expert. I have charge of the laboratory where we are conducting wood-pulp experiments.

The CHAIRMAN. Have you had charge of the experiments being conducted in connection with the Bureau of Plant Industry?

Mr. SUTERMEISTER. Yes, sir.

The CHAIRMAN. Who is the gentleman over there who also has special charge?

Mr. SUTERMEISTER. Doctor Cobb.

The CHAIRMAN. Tell us about the experiments you have been carrying on; and, by the way, first, are these experiments that have been going on for years or are they experiments in connection with the appropriation made last year?

Mr. SUTERMEISTER. They are in connection with the appropriation made last year. Which do you wish to hear about first, the cornstalk experiments?

The CHAIRMAN. It is immaterial to me which you take up first.

Mr. SUTERMEISTER. Then, I will take up, first, the cornstalk experiments. The cornstalks we used were local growth, from Silver Springs, Md.

The CHAIRMAN. What kind of corn?

Mr. SUTERMEISTER. The kind of corn I am not sure about. It was probably the ordinary field corn grown in this neighborhood. The stalks were obtained by Mr. Sherwood.

The CHAIRMAN. Of Chicago?

Mr. SUTERMEISTER. Of Chicago.

The CHAIRMAN. Did he make the laboratory experiments?

Mr. SUTERMEISTER. He was present when the first ones were made, but has not been there during the latter part of the experiments.

The CHAIRMAN. He called on me in Chicago and told me that he had been conducting the experiments. That was last summer some time, or in the fall some time?

Mr. SUTERMEISTER. Yes; he was here in the fall.

The CHAIRMAN. He thinks he has some special process, does he not?

Mr. SUTERMEISTER. The special part that he has consists in a separator for separating the long fiber from the pith.

The CHAIRMAN. I invited him to appear before the committee to testify, but he thought it might be at that time an injury to his business and the development of it, if he did appear, and he preferred not to; and while he did not decline, I did not feel that we ought to require him to testify.

Mr. SUTERMEISTER. We have made about 28 different cooks of this material under varying conditions. We have separated the long fiber from the pith, and I have samples here of each kind, both bleached and unbleached. The durations of our cooks have been from about two and one-half hours up to eight hours.

The CHAIRMAN. Describe to us the process that you used, from the beginning until the end.

Mr. SUTERMEISTER. The cornstalks are put through a feed cutter to cut them into short pieces about an inch and a half long, and they are washed in a hogshhead with a stream of water to get off field dirt.

The CHAIRMAN. With the leaves on or off?

Mr. SUTERMEISTER. The leaves and husks and all are left on. The entire plant is there, with the exception of the root and the ear. After washing, they are drained.

The CHAIRMAN. How do you wash them?

Mr. SUTERMEISTER. They are washed in a hogshhead with water, sousing them up and down to allow the dirt to wash off and sink to the bottom.

The CHAIRMAN. You wash them with water only?

Mr. SUTERMEISTER. Yes.

The CHAIRMAN. You wash them on the theory that the dirt will sink?

Mr. SUTERMEISTER. Yes. As a matter of fact, we do not get a very thorough separation of dirt in that way.

The CHAIRMAN. You get the sand out?

Mr. SUTERMEISTER. We get the sand out and the coarse dirt, but fine clay soil, which sticks to the stalk very tenaciously, will not be removed.

The CHAIRMAN. No. How much of a process is it to wash them?

Mr. SUTERMEISTER. It is not a very long process. As a matter of fact, in working the process commercially, I think it would not be necessary to wash them.

The CHAIRMAN. How do you cut them up, to begin with?

Mr. SUTERMEISTER. With an ordinary feed cutter, such as is used on the farm for cutting ensilage.

The CHAIRMAN. Do you use a regular ensilage cutter?

Mr. SUTERMEISTER. Yes, sir; it is a small one. We do not run it by power, but it is a regular ensilage cutter, such as is used on a small scale on the farm.

The stalk after washing is allowed to drain a few moments to let most of the water drain off, and then we weigh out a sample of about 25 pounds which we use for the cook. That is placed in a small steel digester. The digester is about 30 inches in diameter and about 4 feet high. The top and bottom consist of cones. The cornstalk being placed in that, a certain amount of caustic-soda liquor is put in. The per cent of caustic soda is figured on bone-dry weight of the stalk.

The CHAIRMAN. What?

Mr. SUTERMEISTER. It is figured on bone-dry weight, absolutely dry material that we put in there. We determine the moisture in the stalks as we put them in, in order to base everything on the absolutely dry stalk. It is the only scientific and absolutely satisfactory way to do it. We run in the caustic-soda liquor and we add a certain amount of water to that in the digester in order to get enough liquor to cover the stalk with the caustic-soda solution. Then the head is put on the digester, the head being merely a cover to close the opening through which we put the stalks in, and we turn on steam pressure, live steam being blown directly into the digester. The cooking is continued for varying lengths of time, from two and one-half hours to seven or eight hours.

The CHAIRMAN. How do you determine the length of time?

Mr. SUTERMEISTER. We determine that to a certain extent by the quality of the stock that we desire, and also by the steam pressure which we use. A high steam pressure will complete the cook in a shorter time than a low steam pressure and will give practically the same results.

The CHAIRMAN. How high a steam pressure? Give us the actual facts.

Mr. SUTERMEISTER. I have cooked most of these cooks at 110 pounds steam pressure.

The CHAIRMAN. How long does it take?

Mr. SUTERMEISTER. Two and one-half hours to three hours gives a very satisfactory result.

The CHAIRMAN. You spoke of the quality of the pulp that you desired being affected by the length of cook. How is that?

Mr. SUTERMEISTER. If it is not cooked long enough some of the fiber bundles in the stalk are not completely separated, and the fiber comes out what we call shievy.

The CHAIRMAN. What does that mean?

Mr. SUTERMEISTER. It is a technical term applied to portions of the material that are not thoroughly cooked and broken apart. For instance, in cooking wood, it would be applied to little slivers of wood which have escaped the cooking action, and in the same way it applies to pieces of the cornstalk which have not been thoroughly disintegrated. I can show it to you best, perhaps, in some of these specimens.

The CHAIRMAN. No; I know what you mean.

Mr. SUTERMEISTER. I think you have the worst one right here [indicating sample]. We would consider that a shievy. Those long pieces show unsatisfactory cooking conditions in some part of the process. Now, after the cook has gone for the length of time which we decided on before starting the cook, the stock is blown out through a 2-inch pipe into a pit with a perforated false bottom. The fiber stays on the top of the false bottom and the liquor drains through, and after determining its volume and saving a sample for analysis is run to waste. The stock is washed in this pit and is then pressed and sampled in order to determine the moisture in it. In this manner we determine the amount of the dry fiber present. After doing that we screen it in order to separate the shievies and uncooked portions from the good fiber, and then in most cases we run it through Mr. Sherwood's separator in order to separate the pith from the long fiber, and then it is made up into sheets on a small hand mold in order to get the stock into condition where we can store it. That is, briefly, the process that we put the stalks through.

Mr. SIMS. How much fiber do you get out of a ton of stalk?

Mr. SUTERMEISTER. From a ton of stalks we should get about 850 pounds of fiber. Of that 850 pounds just about two-thirds consists of this pith or short fiber. The other third is long fiber.

The CHAIRMAN. There is not much fiber to the pith?

Mr. SUTERMEISTER. No; it is very short fiber. It is almost all globular cells.

The CHAIRMAN. It does not look to me as though it had any fiber to it at all, in this sample. There may be a little fiber.

Mr. SIMS. What is this we have here, the paper or the pulp?

Mr. SUTERMEISTER. That is the pulp, or rather it is pith pulp made up into sheets. It could not be called paper. The pith would have to be made into specialties.

Mr. SIMS. What is that [indicating sample]? That is paper, is it not?

Mr. SUTERMEISTER. No, sir; this is bleached pulp. There [presenting another sample] is the long fiber in the unbleached condition, and here are some of the sheets which have been bleached.

Mr. SIMS. This is the pulp, then, and not paper?

Mr. SUTERMEISTER. Yes. We make no finished paper down there whatever.

Mr. SIMS. So that you have nothing to show what kind of paper is made out of cornstalks?

Mr. SUTERMEISTER. No, sir.

The CHAIRMAN. Now, how much space does a ton of cornstalks occupy?

Mr. SUTERMEISTER. I could not tell you, sir.

The CHAIRMAN. How many cords are there in a ton?

Mr. SUTERMEISTER. I do not know. I presume if the stalk was baled under heavy pressure you could get a ton of stalks in a fairly small space.

The CHAIRMAN. Take ordinary cornstalks that are not baled, how many cords would there be in a ton? That is really the practical proposition in the question of making paper out of cornstalks.

Mr. SUTERMEISTER. It would be merely a rough guess if I told you. I should say it would be something over three cords.

The CHAIRMAN. And out of that ton you would get about as much pulpy material from the digester, or not quite as much, as you would from a cord of wood?

Mr. SUTERMEISTER. Not quite.

The CHAIRMAN. About 850 pounds?

Mr. SUTERMEISTER. Yes.

The CHAIRMAN. Of which two-thirds is pith?

Mr. SUTERMEISTER. Approximately.

The CHAIRMAN. When it is separated?

Mr. SUTERMEISTER. Yes.

The CHAIRMAN. That would leave something less than 300 pounds of fiber from a ton of cornstalks?

Mr. SUTERMEISTER. Yes.

The CHAIRMAN. From wood you would get a thousand pounds from a cord?

Mr. SUTERMEISTER. It varies with the process. The soda process on poplar wood yields about 1,200 pounds to the cord.

The CHAIRMAN. I was under the impression that it yielded on the average about a thousand pounds, about the same as the sulphite process; but if it is 1,200 pounds under the soda process, for a ton of wood you would get between 500 and 600 pounds, probably?

Mr. SUTERMEISTER. It would be a little more than that. I think a cord of poplar wood weighs about 3,000 pounds.

The CHAIRMAN. A cord of spruce wood weighs about 4,200 pounds before it is dried, I think.

Mr. SUTERMEISTER. Have you any figures on the weight per cord?

Mr. KELLOGG. No; I do not know just how much the weight per cord is. It depends very largely on the seasoning conditions, of course.

The CHAIRMAN. Yes; but a cord of spruce wood weighs about 4,200 pounds. As I remember it, it weighs about 4,200 pounds. Of course, the practical question in relation to cornstalks is the cost of the production. No one doubts that you can make paper out of cornstalks. You can make paper out of orchids, I suppose.

Mr. SIMS. This dark-colored stuff is made from the pith [indicating samples]?

Mr. SUTERMEISTER. Yes.

Mr. SIMS. Will that make paper?

Mr. SUTERMEISTER. It will make a certain sort of paper.

The CHAIRMAN. I do not think it would run over a paper machine such as they have now.

Mr. SIMS. Could it be used by mixing it with other fibers, to make a useful quality of paper?

Mr. SUTERMEISTER. I think so.

The CHAIRMAN. Judging solely by the looks of it and tearing it, it has not nearly so much fiber in it as ground wood has.

Mr. SUTERMEISTER. It has not.

The CHAIRMAN. There are only a few kinds of ground wood that will hold together to run over a wet machine.

Mr. SUTERMEISTER. Did Mr. Sherwood show you any of his samples?

The CHAIRMAN. No; he did not. That is, I do not think he did. There is no doubt that he can make the conversion. The question is as to the expense of it. Personally, I never have taken any stock in the experiment at all. I would like to be convinced to the contrary, but I believe it will cost more to assemble the cornstalks than it does to make ground wood.

Mr. SUTERMEISTER. I have no figures on the cost of assembling or handling of the stalks.

The CHAIRMAN. You have not made any sulphite out of this?

Mr. SUTERMEISTER. No, sir.

In the soda process the caustic soda is the strong alkali that they use for making soap.

Mr. SIMS. What they call condensed lye?

Mr. SUTERMEISTER. Yes.

Mr. SIMS. I thought that was a potash?

Mr. SUTERMEISTER. Caustic soda and caustic potash are very similar. They would serve the same purpose in this work. This pith material has a certain value.

The CHAIRMAN. What for?

Mr. SUTERMEISTER. It can be made into a grease-proof paper. I have made this into paper that I wrapped up machine oil in and left it standing overnight, and it had not soaked through in the morning.

Mr. SIMS. Paper made from the pith?

Mr. SUTERMEISTER. From the pith; yes, sir.

The CHAIRMAN. The question is whether you can make it into anything in the way of a sheet with any machinery that is now known.

Mr. SUTERMEISTER. You can run it over a Fourdrinier machine.

The CHAIRMAN. Have you tried it?

Mr. SUTERMEISTER. Yes.

The CHAIRMAN. Where?

Mr. SUTERMEISTER. At the Cumberland mills.

The CHAIRMAN. This pith?

Mr. SUTERMEISTER. Pith from cornstalks. Not this.

The CHAIRMAN. What did they produce? Have you any samples of that?

Mr. SUTERMEISTER. No, sir; not with me.

The CHAIRMAN. Have you any at all?

Mr. SUTERMEISTER. I think I have; yes, sir.

The CHAIRMAN. If you have been running it over a Fourdrinier machine, I should think you would want to have a sample of it.

Mr. SUTERMEISTER. I can probably find some at the house and bring it to you in the morning.

Mr. SIMS. Some of the paper made from the pith?

Mr. SUTERMEISTER. From the pith; yes, sir.

Mr. SIMS. Without the intermixture of any other substance?

Mr. SUTERMEISTER. Yes, sir.

The CHAIRMAN. You might do that. They seem unable to successfully run the ground wood by itself over a Fourdrinier machine and make it work, and it has a great deal more fiber than this, and the fiber is what holds it together.

Mr. SUTERMEISTER. Yes.

The CHAIRMAN. It is a question whether you can run it over.

Mr. SUTERMEISTER. We have made a continuous web of it.

The CHAIRMAN. What length web?

Mr. SUTERMEISTER. I could not tell you the length. They reeled it up.

The CHAIRMAN. Have you been in the paper mills very much?

Mr. SUTERMEISTER. I worked in one for eight years.

The CHAIRMAN. Then you ought to know all about it.

Mr. SUTERMEISTER. Yes.

Mr. SIMS. Practically, as well as theoretically.

The CHAIRMAN. Yes.

Mr. SIMS. Have you some paper bleached and unbleached?

Mr. SUTERMEISTER. Yes, sir; bleached.

Mr. SIMS. Have you some of the unbleached paper made from the pith?

Mr. SUTERMEISTER. Yes.

Mr. SIMS. Then we ought to have it.

Mr. SUTERMEISTER. The paper was made back in 1903.

The CHAIRMAN. You can make cellulose fiber out of any vegetable that grows, I suppose? All vegetables have some cellulose fiber in them?

Mr. SUTERMEISTER. Yes, sir.

The CHAIRMAN. The question is as to the amount you can get, and as to the cost.

Mr. SUTERMEISTER. And the quality of the material after it has been obtained.

The CHAIRMAN. Yes. You have not proceeded far enough to make any estimate, I suppose, of the cost of making fiber from corn-stalks?

Mr. SUTERMEISTER. No, sir. I would not be willing to estimate on it quite yet. I presume the Bureau of Plant Industry is going to get statistics of the cost of collecting the material. That is up to them, is it not?

Mr. KELLOGG. Yes; they furnished the material to our laboratory, Mr. Mann, that we are testing. We have not got far enough along yet to make a definite report. The experiments are running right straight along. This is some of the stuff that has been recently run through.

The CHAIRMAN. Unless you find something that these pith sheets can be used for, or the pith can be used for, of course the process is wholly impracticable.

Mr. SUTERMEISTER. Yes. Will you notice the folding qualities of this sheet I have here. Crease it as hard as you can, and you can hardly make it crack at all. If you will try this one, this has a little more of the long fiber in it [indicating sample].

That will probably make very good material for folding box boards, or something of that sort, where color is of no importance.

The CHAIRMAN. Here is a pith fiber sheet marked "Pith with a little fiber. Soda cook, seven hours."

Mr. SUTERMEISTER. Yes.

The CHAIRMAN. Does the pith have to be cooked longer?

Mr. SUTERMEISTER. They are all cooked together. The separation takes place after cooking.

The CHAIRMAN. That is what I supposed.

Mr. SUTERMEISTER. Yes.

The CHAIRMAN. What makes the difference? What is the cause of cooking some of these seven hours and some of the others two and three-quarters and three hours?

Mr. SUTERMEISTER. We have tried various lengths of time and varying amounts of caustic soda and varying pressures in order to see which process gave us the best fiber, the highest yield, or was the most advantageous all around.

The CHAIRMAN. Take this marked "Pith with a little fiber;" does that mean that that is the way it came from the digester?

Mr. SUTERMEISTER. No, sir; the fiber and pith were separated first and then we put back a small proportion of long fiber with the pith.

The CHAIRMAN. What is the material that comes out before they are separated? Have you any of that here?

Mr. SUTERMEISTER. No, sir; I have not any of it here; we have not made up any sheets in that way.

The CHAIRMAN. Why not?

Mr. SUTERMEISTER. Well, I could not see any use in it, because when it is with the pith, the long fiber is too hard for any kind of paper I know of.

The CHAIRMAN. What do you mean?

Mr. SUTERMEISTER. It rattles [illustrating with sample]. That is what we call a hard paper. That long fiber which you have there is a soft paper.

The CHAIRMAN. Yes; and it is the pith that makes the rattle.

Mr. SUTERMEISTER. Yes; but when the two are mixed the product is too hard.

The CHAIRMAN. This pith tears very easily, and it has not much fiber. Supposing you left the fiber in it, it would not tear so easily, of course.

Mr. SUTERMEISTER. No, sir; this would represent more nearly the condition of the original fiber, but that has less of the long fiber than the full product as it comes from the digester.

The CHAIRMAN. The fiber itself which you get, which I suppose is almost clear cellulose fiber—

Mr. SUTERMEISTER. Very nearly.

The CHAIRMAN (continuing). Is much like soda fiber produced by any process?

Mr. SUTERMEISTER. Yes, sir. There is nothing remarkable about that long fiber.

The CHAIRMAN. But the amount you get is not very large, and the pith you get in sheets when dried is altogether too stiff and hard for any ordinary paper?

Mr. SUTERMEISTER. Yes, sir.

The CHAIRMAN. That is, for writing or printing paper.

Mr. SUTERMEISTER. The pith would probably have to be made into specialties.

The CHAIRMAN. The question is, how far there is a demand for specialties. This is very stiff, but not very tough.

Mr. SUTERMEISTER. No, sir; it is not very tough in tearing.

The CHAIRMAN. If it was thick enough it might be made in the form of a board; but would not that be rather an expensive process to make boards?

Mr. SUTERMEISTER. I think so. I think it could be made into a semitransparent grease-proof specialty of some sort. You have seen these transparent papers which are used for wrapping up bottles—chemical bottles especially. A great many times when you buy a bottle of chemical from the druggist, patent medicine or something of that sort, you find it wrapped in a semitransparent wrapper.

The CHAIRMAN. Yes; that is a complete semitransparent wrapper and is a very high grade of specialty.

Mr. SUTERMEISTER. Yes, sir.

The CHAIRMAN. But it has to be somewhat tough?

Mr. SUTERMEISTER. Yes.

The CHAIRMAN. Here is a wrapper that is not semitransparent, but is partially transparent, which would also hold grease.

Mr. SUTERMEISTER (after examining paper). Yes, sir.

The CHAIRMAN. Although I think grease would go through it, as grease would go through this [indicating sample of pith]. Of course, they now have lots of board in which they can put grease for a short time.

Mr. SIMS. I would like to ask one question just for information. I do not know that it bears particularly on what we are speaking of now. What is the material that is used in trunks and suit cases that are called "fiber trunks" or "fiber suit cases?" They have them now and they are expensive; high-priced, but very durable. They are called "fiber" trunks or suit cases.

Mr. SUTERMEISTER. I do not know what it is. I have never happened to see any of them.

The CHAIRMAN. Of course, you can make an extremely strong paper out of sulphite?

Mr. SUTERMEISTER. Yes.

The CHAIRMAN. You can make a stronger paper out of sulphite than out of soda, so far as the strength is concerned, I suppose; although I am not sure about that.

Mr. SUTERMEISTER. This very strong so-called "Kraft" paper is made out of soda fiber. The percentage of bleach which I have marked on here is the amount required to bring the fiber up to a standard, made by taking six different commercial fibers and mixing them in equal proportions and making up sheets in this same form. In other words, it is a compound commercial color.

The CHAIRMAN. It is what?

Mr. SUTERMEISTER. A sort of composite commercial color.

The CHAIRMAN. I do not understand what you mean by that.

Mr. SUTERMEISTER. I mean we take six samples of commercial bleached fiber, such as is sold in the market, and mix the fibers in equal proportions, and then we make up sheets of this same form on our little hand molds and use those sheets as a standard color.

The CHAIRMAN. This does not look as though that had very much long fiber in it—not as much as hemlock sulphite.

Mr. SUTERMEISTER. It is not as long as hemlock.

The CHAIRMAN. What else have you here?

Mr. SUTERMEISTER. I have some sheets of cotton stalk here. Here, first, is some tule grass, some that Doctor Cobb sent over and wanted us to try.

Mr. SIMS. What is tule grass?

Mr. SUTERMEISTER. It is a grass growing in California. There is probably not enough of it to ever amount to anything as a paper stock. This is the pith and this is the long fiber [indicating samples].

The CHAIRMAN. What is the process of separating the fiber from the pith pulp after the cooking process?

Mr. SUTERMEISTER. We have a trough which consists of perforated sheet metal, with very fine perforations, and in that trough, fitting closely to the sides, there is a helicoid conveyer, which turns the pulp over and over in passing through the trough, and while the pulp is turning in that way a stream of water is sprayed on it, and the long fiber is carried on by the conveyer and the short fiber is washed out from it and passes out through the perforations in the base of the trough, and is run off into a separate tank.

The CHAIRMAN. I notice in these samples of the cornstalk that you have here your long fiber seems to be of much lighter color than the pith.

Mr. SUTERMEISTER. Yes, sir; very much lighter.

The CHAIRMAN. I would suppose it would be just the opposite. The pith is a white substance and the cornstalk is not.

Mr. SUTERMEISTER. The pith apparently dries down to this horny material, and I think the physical condition of it has a great deal to do with the color. You can notice the difference in those two sheets [indicating samples]. You can also notice the difference along the edge here and in the center. I do not know why there is that difference in the color, but I think it must be due to a different physical condition of the pith.

Mr. SIMS. Let us go on to the cotton stalk, if you are through with this. Let Mr. Sutermeister make his statement about cotton stalks.

Mr. SUTERMEISTER. We put the cotton stalk through about the same process that we do the cornstalk. It has to be crushed rather fine in order to get sufficient penetration of the liquor for good cooking.

Mr. SIMS. How do you get it; run it through the feed cutter?

Mr. SUTERMEISTER. We have a little chopper, which has a knife moving up and down, and we feed the stalks into it endwise. It is a crude arrangement. It ought to be passed through crushing rolls in order to split the stalk as well as cut it. After treating it in that way the process is practically the same as that with the cornstalk.

The CHAIRMAN. How about the percentage of soda in the cook?

Mr. SUTERMEISTER. The amount of caustic soda required is considerably more than that required for cornstalk. It takes about 30 per cent of the weight of cotton stalks in order to give it a satisfactory cooking. It requires a much harder treatment than cornstalks. It takes about six to nine hours at 90 to 110 pounds steam pressure, and the yield varies from 35 to about 43 per cent.

Mr. SIMS. No pith results?

Mr. SUTERMEISTER. There is no pith.

Mr. SIMS. It is all fiber?

Mr. SUTERMEISTER. It is practically all fiber. Some of the fiber is very short.

Mr. SIMS. How many tons of cotton stalk will it take to make 1 ton of pulp?

Mr. SUTERMEISTER. It would take about 2½ tons.

Mr. SIMS. And then the pulp is all fiber pulp?

Mr. SUTERMEISTER. Practically all fiber pulp; yes, sir.

The CHAIRMAN. There is not very much long fiber about that [indicating sample].

Mr. SUTERMEISTER. No; the fiber of cotton stalk is very short.

The CHAIRMAN. There is not as much long fiber in that cotton stalk as we find in lots of the ground wood.

Mr. SUTERMEISTER. The cotton stalks that we have had to work with have been old and somewhat attacked by rot.

Mr. SIMS. They were not fresh stalks.

Mr. SUTERMEISTER. They were not fresh stalks; no, sir; and I think possibly that may have had something to do with the low yield and the poor quality of the product.

Mr. SIMS. You hardly think, then, that the cotton-stalk test was a fair test?

Mr. SUTERMEISTER. No, sir; I do not.

Mr. SIMS. And the average, therefore, is not reliable?

Mr. SUTERMEISTER. It is not to be relied on conclusively. We must make more tests before we can pass satisfactory judgment on it.

The CHAIRMAN. You say as to cotton stalks that it takes about 2½ tons of stalks to make 1 ton of cotton fiber by the soda process?

Mr. SUTERMEISTER. Yes, sir.

The CHAIRMAN. How many cords does it take under ordinary, usual conditions, not pressed, to make a ton of cotton stalks?

Mr. SUTERMEISTER. The material is just about as bulky as cornstalks. It is branchy and will not pack close together.

Mr. SIMS. It is really more difficult to handle by way of shipping, and in assembling, than cornstalks?

Mr. SUTERMEISTER. Yes; it would not adapt itself to baling at all, I think. Cornstalks might be baled.

Mr. SIMS. But it might be ground and shipped in the ground state?

Mr. SUTERMEISTER. Yes.

Mr. SIMS. In the form of sacks or bales in that way?

Mr. SUTERMEISTER. Yes, sir; you could pack it very closely then.

The CHAIRMAN. How would you bale cornstalks?

Mr. SUTERMEISTER. I think they could be baled in a machine similar to a hay baler.

Mr. SIMS. You can shred cornstalks and ship them?

The CHAIRMAN. You could shred them easily enough and ship them.

Mr. SIMS. Then you could use the shredded stuff?

Mr. SUTERMEISTER. It has got to be shredded or cut or crushed before we can use it.

The CHAIRMAN. Yes; but that would involve a shredder or cutter in every place where the cornstalks were first put up, and shredded cornstalks easily heat and ferment, which would probably greatly deteriorate them.

Mr. SIMS. It involves it, anyway, if you feed them. They do have those machines on every large farm, anyway.

Mr. SUTERMEISTER. There is one point in regard to cornstalks that I forgot to mention. We can take the cornstalk after it is packed into the digester, and extract with water, under pressure, and get out an extracted material which can be used after evaporation as a cattle fodder. That is, we evaporate the extract which we obtain to a semi-liquid state and mix it with some ground feed, and we get nearly all of the value of the food which is in the cornstalk.

The CHAIRMAN. Now, let us see; when you run these through caustic soda the caustic soda eats up the intercellular matter, does it not?

Mr. SUTERMEISTER. Yes; and changes its chemical condition entirely.

The CHAIRMAN. How do you get that back?

Mr. SUTERMEISTER. We extract with water before we add the caustic soda.

The CHAIRMAN. Oh, you wash it first for the food substance before putting in the caustic soda?

Mr. SUTERMEISTER. Yes; and then pack it into the digester.

The CHAIRMAN. You first pack it into the digester?

Mr. SUTERMEISTER. Yes.

The CHAIRMAN. And then you do what?

Mr. SUTERMEISTER. We add water and turn on the steam, and extract under a slight pressure—only 15 or 20 pounds—and draw off the liquid. It contains a large portion of the soluble matter in the cornstalk.

The CHAIRMAN. How much of that liquid will you get in a ton of cornstalks?

Mr. SUTERMEISTER. We get from a ton of cornstalks about 300 pounds of dry matter.

The CHAIRMAN. What does that dry matter consist of, chemically?

Mr. SUTERMEISTER. It is in large proportion glucose—sugars. There is about 14 to 15 per cent ash, about 40 per cent glucose, and there is 3 or 4 per cent of other sugars. There is about 9 per cent of proteid matter.

Mr. SIMS. That is a pretty good foodstuff?

Mr. SUTERMEISTER. Yes, sir.

Mr. SIMS. For cattle. Nothing of that sort can be derived from the cotton stalk, can it?

Mr. SUTERMEISTER. Not that I know of. There is, I believe, a medicinal extract from roots of cornstalks, but I do not imagine the demand for it would be very great.

Mr. SIMS. Do you know what the medicinal matter is?

Mr. SUTERMEISTER. No, sir; I do not.

The CHAIRMAN. Do you use the roots of cornstalks?

Mr. SUTERMEISTER. No, sir.

Mr. SIMS. You use the root of the cotton stalk, though?

Mr. SUTERMEISTER. Yes, sir.

The CHAIRMAN. Have your experiments led you to believe that you can reduce a ton of cornstalks or cotton stalks to pulp by the soda process for less than you can reduce a ton of wood for?

Mr. SUTERMEISTER. With cotton stalks, I should say no. For cornstalks, I should say yes.

The CHAIRMAN. How much less? What do you figure it costs per ton?

Mr. SUTERMEISTER. I could not tell you the cost. The cotton stalks require over 30 per cent of caustic soda, whereas we can treat the cornstalks with 18 per cent. Poplar wood requires 25 per cent.

The CHAIRMAN. Are you figuring upon the soda being lost?

Mr. SUTERMEISTER. No, sir; recovered. The soda can be recovered just as well with cornstalks as it can with wood.

The CHAIRMAN. Yes, I understand; but in your experiments you do not recover it?

Mr. SUTERMEISTER. We have not recovered it; no, sir.

The CHAIRMAN. What other experiments have you made?

Mr. SUTERMEISTER. We have tried some rice straw. The rice straw has a pith which is rather finer than that of the cornstalk, and the product is very markedly different. There are the piths from rice straw. Here are three samples that are made up in a little different form [exhibiting samples].

The CHAIRMAN. Why do you say it is markedly different from the cornstalk piths?

Mr. SUTERMEISTER. It is not so hard and horny.

The CHAIRMAN. This is not quite so thick as the other.

Mr. SUTERMEISTER. No, sir.

The CHAIRMAN. Would there be any difference if it were as thick?

Mr. SUTERMEISTER. There would be, yes, sir. There is a great difference in the shrinkage, too. That sheet was made on the same hand mold as the sheets of cornstalk. That is not a full sheet of that cornstalk that you have there.

The CHAIRMAN. The cornstalk is thicker.

Mr. SUTERMEISTER. Yes, it is thicker, but the difference may be due to shrinkage. They are made with the same hand mold and have the same superficial area when they are made, and if the cornstalk shrinks inwardly from the edges, if you have the same superficial area and you push it up into half that area, you have got to have it thicker.

Mr. SIMS. He means it may shrink this way, as well as that way [indicating].

The CHAIRMAN. But about the thickness of it. That depends on the thickness of it when it runs over the machine? You can make it twice as thick as that if you want to?

Mr. SUTERMEISTER. Yes, but if you make a sheet 12 inches wide and shrink it down to 6 inches wide, in all probability you will have it about twice as thick when you get through. When it is wet it is about the consistency of cream of wheat. You can imagine trying to make a sheet of paper out of cream of wheat.

The CHAIRMAN. Of course, on a wet machine, they do not use anything as thick as that. You have no way of doing it so that you keep winding it over?

Mr. SUTERMEISTER. No, sir. Here is some of the long fiber from rice straw.

The CHAIRMAN. Rice straw ought to make a very fine paper; does it?

Mr. SUTERMEISTER. I think it would; yes, sir. We have made no paper down there, and we can not tell absolutely, but there is no reason why we can not make a good grade of rice paper.

The CHAIRMAN. Is paper on the market known as "rice paper" made out of rice?

Mr. SUTERMEISTER. I have seen some rice paper that was made out of rags entirely, and I have also seen some that was made out of ground wood. You never can tell from the name what the paper has in it.

Mr. SIMS. Is this prospectus which you have handed to me a proposition to sell stock in something?

Mr. SUTERMEISTER. Yes, sir; but there are some samples of paper in there that are claimed to be made from cotton stalks.

Mr. SIMS. Yes; I see.

Mr. SUTERMEISTER. Whether they are or not I could not tell. I have not examined them. It is fairly short fiber, but it is fiber that will make a very good grade of paper. The length of fiber is not so important as the ratio between the length and width. If you have a short fiber which is very narrow, it will make a better sheet than a long fiber which is very broad.

The CHAIRMAN. Of course you do not want a fiber that is too long, that is true, but this seems to be a very short fiber; that is, that is the way it seems to me, looking at it now. It looks more like ground wood.

Mr. SUTERMEISTER. It has not the length of spruce fiber.

The CHAIRMAN. What other experiments have you made?

Mr. SUTERMEISTER. These are all that we have. We have worked on these things down there in connection with the Bureau of Plant Industry.

The CHAIRMAN. Have you experimented at any time with any other articles in the way of materials for pulp making?

Mr. SUTERMEISTER. You mean either here or in my own private work with private concerns?

The CHAIRMAN. Either one.

Mr. SUTERMEISTER. Yes; I have.

The CHAIRMAN. How long have you been working with the Bureau of Forestry?

Mr. SUTERMEISTER. A little over a year. A year ago last September I entered the service.

The CHAIRMAN. What were you engaged in before?

Mr. SUTERMEISTER. I was a paper-mill chemist at the Cumberland mills.

The CHAIRMAN. At the Cumberland mills?

Mr. SUTERMEISTER. Yes, sir; we were experimenting there continually on various things.

The CHAIRMAN. Mostly woods?

Mr. SUTERMEISTER. Not entirely, no. They are trying cornstalks there to quite an extent, in an experimental way. They have tried esparto.

Mr. SIMS. What is that?

Mr. SUTERMEISTER. It is a grass.

The CHAIRMAN. It is not used in this country to any great extent, because it is not profitable to get it here. It makes fine paper?

Mr. SUTERMEISTER. Most excellent paper, but the fiber in cornstalks is just as good as that in esparto.

The CHAIRMAN. You will not get as much fiber per ton out of cornstalks as you will out of esparto.

Mr. SUTERMEISTER. No, sir.

The CHAIRMAN. And the reason esparto is not used in this country to any extent is because of the cost of the raw material laid down here, is it not?

Mr. SUTERMEISTER. In good part. It is partly because it requires special machinery. The apparatus which is used for wood pulp could not be used for esparto.

The CHAIRMAN. No.

Mr. SUTERMEISTER. All of the mills that have been put up in this country have been put up primarily for wood, and in changing to utilize esparto it would require giving up present machinery and putting in new.

The CHAIRMAN. It is only the production of the pulp that requires different machinery. But esparto does not pay here, when we have wood so cheap, as I understand it.

Mr. SUTERMEISTER. No.

Mr. SIMS. Where does esparto grass come from?

The CHAIRMAN. It comes from Spain, does it not?

Mr. SUTERMEISTER. From Spain and northern Africa.

Mr. SIMS. It is an imported material?

Mr. SUTERMEISTER. Yes.

The CHAIRMAN. There is more or less of it imported into England?

Mr. SUTERMEISTER. They use a great deal of it in England. It makes a very soft and bulky paper. We can get almost the same bulk by using soda poplar fiber.

The CHAIRMAN. You have tried only the soda process?

Mr. SUTERMEISTER. Yes, sir; on these materials.

The CHAIRMAN. Can you make the fiber with the sulphur process out of these materials?

Mr. SUTERMEISTER. I would not like to say either way at present. I have tried a few very small experiments and have not got a very good product.

The CHAIRMAN. It would be less expensive under the sulphur process, would it not?

Mr. SUTERMEISTER. Probably, very slightly less expensive.

The CHAIRMAN. They have stated that the sulphur process is cheaper than the soda process, unless you are where you get very cheap fuel to recover the soda with.

Mr. SIMS. As compared with ground wood pulp, what is the value of soda pulp?

Mr. SUTERMEISTER. You mean the actual market price?

Mr. SIMS. Yes.

The CHAIRMAN. Ground wood pulp is worth about \$20 a ton, a little less than \$20 a ton on the average. It is a little higher than that now.

Mr. SUTERMEISTER. Yes. I think the price for soda-pulp fiber is about \$45.

Mr. SIMS. Anyway, it is worth two for one.

The CHAIRMAN. Of course the two are entirely disassociated in this respect, that ground wood is made purely with water power which is absolutely of no value so far as the soda process is concerned, or very little value. The Cumberland mills do not sell their soda fiber?

Mr. SUTERMEISTER. Not from the Cumberland mills. There is some fiber sold from their Yarmouthville mills.

The CHAIRMAN. Have you experimented with any other woods for making fiber than those ordinarily used?

Mr. SUTERMEISTER. We have tried the soda process on spruce, hemlock, and beech, and I think they have tried some maple there. This is at the Cumberland mills that I am referring to.

The CHAIRMAN. What do they use mainly for their soda fibers?

Mr. SUTERMEISTER. Poplar.

The CHAIRMAN. Is that aspen?

Mr. SUTERMEISTER. Aspen.

The CHAIRMAN. Where do they get that from?

Mr. SUTERMEISTER. The local supply all through Maine, and some down through New Brunswick.

The CHAIRMAN. Is it large or small stuff?

Mr. SUTERMEISTER. It varies very greatly. I have seen it down as small as 3 or 4 inches, and from that all the way up to 20 or 24 inches.

(At 4.15 o'clock p. m. the committee adjourned until to-morrow, Wednesday, December 23, 1908, at 10.30 o'clock a. m.)

SELECT COMMITTEE ON PAPER
AND PULP INVESTIGATION,
Wednesday, December 23, 1908.

The committee this day met, Hon. James R. Mann in the chair.

**STATEMENT OF MR. CHARLES P. NEILL, COMMISSIONER OF
LABOR, ACCOMPANIED BY MR. NEWTON ADAMS.**

The CHAIRMAN. You may proceed, Mr. Neill.

Mr. NEILL. In 1907 there were 96 mills in the United States that made news-print paper. Out of that number there were 39 that made news-print paper only. To make the comparisons you asked we had to eliminate 17 of those because they had not been in operation long enough to cover the whole period. We found 20 mills which had been in existence since 1897 and we covered 18 of those. One mill in Oregon was not visited and one eastern mill was not considered, because it did not go from the two to the three tour system, and that would have thrown out the calculation. We have 18 mills, which represent almost exactly 50 per cent of the output of the mills, that make news print only, and we thought those figures would be almost identical as if we had taken the entire number.

The CHAIRMAN. Are those mills which went to the three-tour system all eastern mills?

Mr. NEILL. Fifteen eastern and three western mills.

Mr. ADAMS. We have separated the eastern and western mills. The three western mills are all on the two-tour system.

Mr. NEILL. The fifteen eastern mills are on the three-tour, and three western mills are still on the two-tour system.

The CHAIRMAN. Are the western mills in Wisconsin?

Mr. ADAMS. Yes, sir.

The CHAIRMAN. All three of them?

Mr. ADAMS. Yes, sir.

Mr. NEILL. There are only three mills which make news-print paper exclusively.

The CHAIRMAN. There are more than three western mills that have made news-print paper for ten years, but not exclusively?

Mr. NEILL. Yes, sir; that is what I said.

The CHAIRMAN. You think this would give a fair statement?

Mr. NEILL. I think if the entire mills were taken there would be a very slight difference, if any, in the figures, when you get as high as 50 per cent.

The CHAIRMAN. Have you included the International Paper Company?

Mr. NEILL. Yes, sir.

The CHAIRMAN. If you get the 50 per cent in that way, it would only represent about 15 per cent or less over and above the International Paper Company's mills?

Mr. ADAMS. You mean of the 50 per cent?

The CHAIRMAN. They make at least one-third of the paper.

Mr. ADAMS. Yes, sir.

The CHAIRMAN. Do you include all their mills?

Mr. ADAMS. All those making news print only. We thought that the moment we used mills making other kinds of paper that would vitiate our report. It was news print that you asked us to get.

Mr. NEILL. You have no idea what it means to get anything out of their figures. We simply had to take their total pay roll and total product, and if they make two kinds of paper you can not get anything at all. Some of these mills themselves, until we got through with them, did not seem to have any idea of the cost of the different elements of their output.

The CHAIRMAN. I do not recollect that my request was confined to news-print paper?

Mr. NEILL. Yes, sir; it stated news-print paper.

You will notice in 1897 we could only find 4 mills, going back that far, that were in operation whose records were available, and we found that taking those returns in 1897 and 1900 there was practically no difference in the total wage cost. In 1897 the total wage cost per ton of news-print paper was \$10.74 and in 1900 it was \$10.60. Then we began in 1900 with the mills and we could follow the same 18 mills right through to 1907. You see in the last column in 1900 4 mills were still in operation and the difference between the cost in 1897 and 1900 was very slight. Then, in 1900 you will find that we were able to get 18 mills that we were able to trace right through from 1900 to 1907.

The CHAIRMAN. In that year the labor cost per ton was \$10.53?

Mr. NEILL. Yes, sir.

The CHAIRMAN. In the eastern mills \$10.59 and the western mills \$10?

Mr. NEILL. Yes, sir. Of course that average is based upon all of the 18 mills. You will notice there, Mr. Chairman, in 1900 the eastern mills compared with 1897—

The CHAIRMAN. Were a trifle less.

Mr. NEILL. Yes, sir.

Mr. ADAMS. The four mills were comparatively small mills; that accounts for that.

The CHAIRMAN. That may account for it, but this is probably something you would not take into consideration. We have learned that they have reduced somewhat the cost of manufacture through processes.

Mr. NEILL. We studied that very carefully in order to find why it was that with a considerable increase in wage cost, in actual wage rates, there had been so slight an increase in the total wages per ton. We have figures on the increased speed of machinery and all that showing how the large increase in wages to the workers was offset by the larger output and the more rapid work of the machine. The method we used to get at that was this: Take, for example, the total production in tons. We had to get that and divide that into the total pay roll. Then, we afterwards subdivided the work, as you will find in the second column, the wages in the forest operation, that means the actual wages paid for cutting the wood and delivering it to the river and, in connection with rafts the cost at the mill, the wages paid for the amount of wood used by each mill to make enough ground wood for a ton of news print, and then, the amount of wood that was used in sulphite to make a ton of news-print paper.

The CHAIRMAN. Is that based upon 80 per cent of ground wood and 20 per cent of sulphite?

Mr. NEILL. No; the actual amount which each particular mill used. It varied a little.

The CHAIRMAN. I know that it varies, but I wanted to know how you arrived at this.

Mr. NEILL. In each mill we found the amount that that particular mill used of the total elements, and then we figured the cost for that mill.

Mr. ADAMS. We had to make an average amount for each year, which they gave us from their records; we could get the actual amount in all cases.

Mr. NEILL. This is based on the actual amount used in the 18 mills and not on an average.

The CHAIRMAN. This sheet would show that from 1897 to 1907, the average amount paid for wages in the forest for timber needed to make ground wood enough for 1 ton of paper increased from \$1.84 in the eastern mills to \$3.55 in the eastern mills?

Mr. NEILL. Yes, sir.

The CHAIRMAN. And from \$2.25 in 1900 in the western mills to \$2.47 in 1907?

Mr. NEILL. Yes, sir.

The CHAIRMAN. That the average wages paid in the forest for enough wood to make sulphite enough for a ton of paper increased in the eastern mills from 77 cents in 1897 to \$1.88 in 1907?

Mr. NEILL. Yes, sir.

The CHAIRMAN. That the wages paid in preparing and grinding wood sufficient to go into a ton of paper increased from \$2.16 in 1897 to \$2.50 in 1907, and that the same for sulphite increased from \$1.25 in 1897 to \$1.48 in 1907. That the wages paid in the paper mills proper per ton of paper decreased from \$4.72 in 1897 to \$4.54 in 1907.

Mr. NEILL. That is only based on the 4 mills. I think if you would take in 1900 for 18 mills it would be better. The addition

of those 14 mills gives an entirely different basis. I think the better figures all the way through are to take the 1900 figures and compare those with 1907. When you add 14 new mills you get a new basis of comparison.

The CHAIRMAN. You think the figures as to 1897 may be misleading?

Mr. NEILL. They are true as to those four mills.

The CHAIRMAN. I mean misleading as to the result.

Mr. NEILL. You get a larger situation. The representation is too small. Those are four small mills.

Mr. ADAMS. Yes, sir.

The CHAIRMAN. What mills were they?

Mr. ADAMS. The Cliff mill, the Pettibone, the Riverside mill, and the Lisbon Falls Fiber Company. You will notice that the tonnage is given in the left-hand corner of the sheet.

Mr. NEILL. The figures from 1900 to 1907 are thoroughly representative and can be relied upon.

The CHAIRMAN. It would appear that these four eastern mills in 1897 were paying a very high rate for wages in the paper mills per ton. You think, probably, higher than would be paid on the average?

Mr. NEILL. It need not necessarily be high wages. When we check these up at every point we get the wage cost by the month, and the difference between one month and another in the same year is simply astounding. I do not know of any other industry where there are such great changes in wages.

Mr. ADAMS. There is difference as high as \$3 a ton.

Mr. NEILL. For instance, one month they might have a number of breakdowns and the wages go on the same, but the output is seriously interfered with.

The CHAIRMAN. We have had a great number of figures showing some considerable difference in cost. Of course, when a ground mill is running twenty-four hours a day it is running on a very different basis from one that may be able to run only a few hours a day owing to a shortage in water.

Mr. NEILL. We found that too. The wage cost per month in every individual mill varies up and down in a most remarkable way. When they are running at a rapid speed they have to stop for an hour or two on account of a jam or some trouble with the machinery that is turning out the paper. One mill had to shut down for nineteen days in one month for some very extensive repairs.

Mr. SIMS. And the wage rate was going right on?

Mr. NEILL. Yes, sir.

The CHAIRMAN. I think not.

Mr. NEILL. Yes, sir; they were using those men, as a matter of fact, and they went along in the work and finally had to put everything in shape. We eliminated in the cost all that might be in the way of actual reconstruction and only allowed in the cost such things as repairs which were actually made by the crew during the stoppage for a short time. That brought about a most startling difference. If one single mill of those four mills having a high cost in the year stopped, it would have changed the average of the three very much. In the 18 mills it would not have made very much difference. That is the difficulty in using such a small representation, although taking

in 1897 these four mills were higher in wages than in 1900, and the 18 mills are lower than the four. So probably there was a wage reduction between 1897 and 1900.

The CHAIRMAN. I think, as a matter of fact, there was no wage reduction.

Mr. NEILL. I mean a wage-cost reduction. There was probably about that time improvement in their methods that brought about a reduced wage cost. Their production increased from 23,000 to 30,000 tons.

The CHAIRMAN. Do you think from your investigation that the increase of wages in the paper mills per ton from \$3.83 in 1900 to \$4.55 in 1907 represents an actual increase in wages to the men?

Mr. NEILL. It represents more than that, I think, Mr. Chairman. What happened between that period was this: There were very large increases to some of the operatives, probably as high as 60 or 70 per cent in the hourly wages. For example, nearly all of the eastern mills went from the two-tour to the three-tour system, which increased the hourly rate of pay 50 per cent, and in addition to that they had an actual increase after 1900 once or twice. That would represent itself in an increased cost to the mill more than is represented here, but at the same time to offset that they increased the speed of the machinery so that the same number of men turned out larger number of tons in a month. They ran a crew working eight hours at the same rate as getting an hourly pay of 50 per cent more than to begin with, and the wage cost of the firm as far as these particular men were concerned increased 50 per cent, but those same men with the machines speeding much more rapidly turned out a great many more feet than formerly, so that the actual wage cost of the paper was increased by the speeding.

The CHAIRMAN. There has been no increased speeding of the machines, except that the new machines as a rule are much wider and faster?

Mr. NEILL. As a matter of fact, some of the machines were reconstructed. Of course, they could not speed them without lengthening them—they had to lengthen them in order to speed. In some cases they could increase the speed without any change at all.

Mr. ADAMS. I found a great many cases where they had strengthened their machines in order to stand the increase of speed. Some of the old machines they went over carefully and strengthened the parts so that they could run faster, perhaps 50 or 75 feet faster. The mills have those records of speed.

The CHAIRMAN. We have great numbers in our record and we have had a whole lot of those people testify before us.

Mr. ADAMS. They did not give us the information until we asked what the speed was in 1897 and 1907.

The CHAIRMAN. We have asked a great many of them as to the speed of the machine. I do not doubt the statement at all, you understand.

Mr. NEILL. We give the actual rate.

Mr. ADAMS. It is not exact; it could not be exact.

The CHAIRMAN. Of course, the average rate of speed has very much increased in the last two years, largely because of putting in a lot of new machines that have a very rapid rate. A machine which runs 500 feet or more a minute is going pretty rapidly.

Mr. ADAMS. Yes, sir.

The CHAIRMAN. No one thought of doing that a few years ago.

Mr. SIMS. Did you make an investigation of any mills that have been built since 1900, to ascertain whether or not the wage cost in the new mill is lower or higher than the average cost in the mills in operation in 1900?

Mr. NEILL. No, sir. We were trying to get the comparative figures. We asked the mills, but found that their figures did not run back far enough.

Mr. SIMS. I see. So you can not say whether in the most recently constructed mills, with the best machinery, the wage cost is lower than the cost in 1900?

Mr. ADAMS. I should say yes. I remember Mr. Gould gave testimony to the contrary.

The CHAIRMAN. Let us look at these figures a little bit. From 1900 your forest wages for ground wood per ton of paper increased from \$2.12 to \$3.55?

Mr. NEILL. In the eastern mills.

The CHAIRMAN. Yes, in the eastern mills; and from \$2.25 to \$2.47 in the western mills. That is incorrect, I am inclined to think, and I am inclined to think it is incorrect because it looks incorrect on its face; and, as a matter of fact, the western mills keep no data in reference to their forest expenses, because they do not gather their own pulp wood.

Mr. NEILL. These figures are taken from the forest itself. We sent out to the contractors to ascertain what they themselves were paying to get this wood out. This does not represent, as I understand it, what the mill paid for wood; it simply represents the actual cost of producing the wood.

Mr. ADAMS. We have no wood figures obtained from the mills themselves. We got them from the jobbers and contractors.

The CHAIRMAN. You will have to prove to me why the cost of getting out a cord, more or less, of wood in the West in 1900 was higher than it was in the East and \$1 lower in 1907 than it was in the East, when, as far as the information before the committee goes, the relative wages paid to the men in the forest, lumbering, were about the same in both parts of the country.

Mr. ADAMS. In the West you understand that the greater part of the wood is cut on the piece price. A man contracts for so many cords of wood at so much per cord, while in the East the jobber goes into the woods and cuts out his wood with his own men.

The CHAIRMAN. I think you are mistaken as to the methods adopted in the West as to the major part of the wood. In both parts of the country now a considerable quantity of the wood is purchased from farmers who cut their own wood or cut somebody else's wood upon some basis, but the bulk of the wood in both places is secured from lumber men.

Mr. ADAMS. Yes, sir.

The CHAIRMAN. And in the West—I have been through it recently—they have contractors who go out, take their lumber crews and cut the wood, and they are apt to cut it clean, using the small spruce for pulp wood, the tamarack for railroad ties, and the white cedar for poles, but it is not cut by the piece.

Mr. NEILL. What Mr. Adams means is that the man goes and takes in a crew of 50 or 60 men, and instead of paying them so much a

day they are paid so much per piece for their work. It is simply the difference between piecework and the rate per day.

The CHAIRMAN. But our information was that they are not paid by the piece. We have the wages that have been paid in the lumber camps. The Weyerhaeusers get out some quantity for their own mills and sell to some mills. The Wisconsin mills have two pulp-wood companies that buy their wood, and they have had for a number of years. In 1907 there was very little wood cut, I will not say very little, but not nearly as much as usual. They could not get the wood in 1907. They went down to Quebec and bought 50,000 cords of wood. That is what produced this panic. We were up where they cut the wood. I have been through the lumber camps and seen the wood piled up alongside the railroad track, have seen great quantities brought in both ways, and there is certainly as much difference in the wages paid in the West as in the East.

Mr. ADAMS. Very nearly.

Mr. NEILL. The increase in the pay?

The CHAIRMAN. Yes, sir.

Mr. ADAMS. The wages we have in the West for cutting, hauling, and driving the load, including board, are \$2.30 in 1900 and \$2.60 in 1907. That is only 30 cents. In the East they are \$2.13 and \$3.74.

The CHAIRMAN. Those are your figures?

Mr. ADAMS. Yes, sir.

The CHAIRMAN. I am satisfied that your figures are not correct.

Mr. NEILL. I will have them looked into very carefully. The western figures are based on how many contractors?

Mr. ADAMS. I do not remember.

The CHAIRMAN. I do not doubt that the figures that the gentleman got may work out this way. The lumber wages in the West were high then and they are high now, notwithstanding the reduction. We saw in Duluth a great number of advertisements for men to go into the forests at from \$30 to \$45 a month, board paid. That is as high as they have been in the East.

Mr. ADAMS. I think we found \$45 in some camps.

The CHAIRMAN. Yes; that is what I say. The wages in both places in 1907 ran from \$35 to \$40 and occasionally \$45 a month, with board and everything included.

Mr. ADAMS. We found \$45 and board.

The CHAIRMAN. I say, with everything included. You make a difference here of \$1.43 increase in getting out the wood in the East and only 22 cents in the West?

Mr. ADAMS. Yes, sir.

The CHAIRMAN. That seems unreasonable, and I am sure it is not correct.

Mr. NEILL. I will have those figures carefully looked into and see what the explanation of those rates is. I remember looking over the eastern figures when obtained and noticed that there were some very large increases in wages.

The CHAIRMAN. The wages in the forest from 1900 to 1907 were almost startling, but it is true both in the East and the West. We have a lot of testimony here, sworn to, more or less of it, as to the wages—I think more in the East than in the West. Our difficulty about getting the wages in the West has been that the mills themselves know nothing about it. Most of the mills do not know where

the pulp wood comes from, except they know what State it comes from, but they do not know how they get it. We talked with Weyerhaeusers, the largest lumber operators out there, and with a lot of other people who are operating in lumber, and their wages are just about the same in the West as they are in the East.

You show in the eastern ground-wood mills an increase in wages from \$2.02 per ton of paper to \$2.50, and in the western mills a decrease from \$2.19 per ton of paper to \$2.18, while you show an increase of wages in the sulphite mill per ton of paper from \$1.28 to \$1.48 in the eastern mills, and in the western mills from \$1.29 per ton of paper to \$1.66. That would seem to indicate a startling difference of wages in the ground-wood mills and the sulphite mills?

MR. NEILL. There might have been no change in the method of producing sulphite, and by putting in slightly larger machinery in the ground-wood mills would make that difference. You understand that this is not a wage rate, this is wage cost, and if they put in a machine which the same man operates and it turns out a larger amount of wood pulp it reduces the cost. There may be no change in the method of producing sulphite and there may have been an actual increase in the wage rates and yet a diminution of the wage cost.

THE CHAIRMAN. As a matter of fact, there has been practically no change either in the sulphite process and machinery or the ground-wood process and machinery. Of course, wages in the ground-wood mill are affected more or less by the shut downs or the scarcity of water, but there has been no such change in process in the ground-wood mill and the sulphite mill as there has been in reference to the manufacture of paper by increased efficiency.

MR. NEILL. The shutting down of the water supply would not affect the sulphite as it would the ground wood.

THE CHAIRMAN. You show quite an increase in the ground-wood mill wages in the eastern mills?

MR. NEILL. Yes, sir.

THE CHAIRMAN. Not so much of an increase in the sulphite mills in the East; scarcely any increase in the West in the ground-wood mills, and a startling increase in the sulphite mills. The sulphite mills do not run on the three-tour system?

MR. NEILL. The ground-wood mills do.

THE CHAIRMAN. The ground-wood mills operate twenty-four hours a day.

MR. NEILL. The one-third when they went from the two to the three tour system would make quite a difference in the cost. The wages in the ground-wood mill would increase because the difference came from the two to the three tour system. There would not be a corresponding increase in the sulphite mill necessarily.

THE CHAIRMAN. Your figures show that in 1900, in the western sulphite mills, it cost 1 cent per ton of paper more than in the eastern mills, while in 1907 it cost 18 cents more, and just the reverse in the ground-wood mills?

MR. NEILL. In the western mills in 1897, in the sulphite mills, their product had increased from 3,300 tons to 4,300 tons.

THE CHAIRMAN. Four thousand three hundred tons?

MR. NEILL. Yes. There are some more detailed figures that Mr. Adams presents.

Mr. ADAMS. Here [indicating on a table] we have the amount of sulphite used in the different mills. There you have the wage cost per ton.

The CHAIRMAN. What I was trying to get at was why there should be no increase in the ground-wood mills in the West and such a considerable increase in the sulphite mills in the West, when there is no such corresponding change in the ground-wood mills in the West.

Mr. ADAMS. Mr. Chairman, you must consider the quantity of sulphite used varied in these mills. You have not the wage cost per ton there on that paper.

The CHAIRMAN. I have the wage cost per ton of paper.

Mr. ADAMS. Yes, sir; but not of the sulphite.

The CHAIRMAN. I have the total production of print paper in these mills.

Mr. NEILL. What Mr. Adams means is this, Mr. Chairman: This does not give the wage cost of any given amount of sulphite in those two years. In each of those mills they have found out just how much sulphite was used in a ton of paper in each year, so that there would possibly be changes there. He found that the amount of sulphite used per ton of paper was variable.

Mr. ADAMS. It varied about 30 pounds per ton in some cases, and in some cases 50 pounds per ton.

Mr. NEILL. Now at those western mills there that you speak of, Mr. Chairman, in their ground-wood mills, where they have not changed from their shifts or tours, their rates are the same in the two years. The production for 1905 is about the same in the sulphite, \$1.39, as against \$1.66. There has been no change there. Do you know, Mr. Adams, whether the amount of sulphite increased there?

Mr. ADAMS. Those figures are not comparable in the least. In the western mills in 1900 they used 492 pounds. When you get up to 1907 they used an average of 524 pounds.

The CHAIRMAN. Then this increase in the wages paid for sulphite per ton of paper in the western mills is due to the increase in the quantity of sulphite used in a ton of paper?

Mr. ADAMS. Yes, sir; very largely.

Mr. NEILL. You see, as I explained, Mr. Chairman, we did not take a given amount of sulphite and assumed that that was used in a ton of paper and figured on that, but in each case we took the actual amount of sulphite used at different times, and it is figured out so that the change in the amount of sulphite used in the different years will affect the wage cost in those years, even at the same rate of wages.

The CHAIRMAN. I do not think it has been called to our attention that there has been an increase in the percentage of sulphite used, although that can be easily explained by the fact that they used Wisconsin local hemlock for the manufacture of sulphite and spruce imported from Minnesota for the manufacture of ground wood. Hemlock costs them \$6 or so a cord, and last year the spruce cost them \$11 a cord at the mill. There has been a rapid increase in the cost of spruce, and not so much of an increase in the cost of hemlock; and then it might be that they have increased slightly their proportion of sulphite for that reason.

Mr. NEILL. In some instances you will find a reduction. It varied very much. In some mills we have found they have increased the

amount of sulphite, and in others we found they had reduced it by getting a better quality of sulphite. We find in some cases that they have been enabled to increase the speed and at the same time reduce the amount of sulphite in their paper.

The CHAIRMAN. The Watab mill in Minnesota probably uses less sulphite than any other news mill in the United States, and makes the finest news-print paper that is made, but their cost of producing ground wood is much greater than the average cost, because they grind on a fine grindstone, which grinds much more slowly and takes more horsepower to make a ton of ground wood by their process than it does ordinarily, and, being ground more slowly on a finer machine, it has a longer fiber, and therefore does not call for so much sulphite.

Mr. SIMS. Where they reduce the cost of sulphite they increase the cost of ground wood, so that that evens it up.

The CHAIRMAN. That is not one of the mills that is taken into consideration in this basis.

Mr. NEILL. No.

The CHAIRMAN. Are all of these Wisconsin mills tending to the use of more sulphite and less ground wood?

Mr. NEILL. That is the case of these four mills averaging together. They go from 492 to 524.

The CHAIRMAN. The total cost, of course, would cover both. The total wages paid per ton of paper in the western mills is \$10 in 1900 and \$11.74 in 1907. In the eastern mills it is \$10.59 in 1900 and \$13.95 in 1907. That gives the western mills a benefit of \$1.08 less for the wages in the forest on the ground wood per ton?

Mr. NEILL. Yes.

The CHAIRMAN. I wish you would have those figures gone over again as to the wages in the forest operations, because I am satisfied they are not correct.

Mr. NEILL. I will have a number of other contractors out there and will get their rates. I am not sure if they are correct.

The CHAIRMAN. They are if you get the correct statements from the contractors.

Mr. NEILL. We get these from the pay rolls. We get the actual figures. So far as I know, nobody's say-so was taken, unless they had no pay roll.

Mr. ADAMS. In the woods they have no pay rolls, but they keep rough time. I have seen those myself.

Mr. NEILL. They are taken right from the records that the man keeps, but I will have that looked into very carefully.

Mr. ADAMS. We have the same difficulty in the ground wood that we had in the sulphite that you mentioned a few moments ago. For instance, in the western mills we found in 1900 they used 1.11 and in 1907, 1.10. They did not use quite as much wood. It is a very small difference, but in the aggregate it amounts to something.

The CHAIRMAN. What are those figures there, again?

Mr. ADAMS. In the western mills in 1900 they averaged 1.11 cords of wood to a ton of ground wood. In 1907, 1.10. In the eastern mills they used 1.08 in 1900 and 1.11 in 1907.

Mr. SIMS. They are not getting so good a quality of wood.

Mr. ADAMS. That is probably the case, although they say they are trying to improve the quality of their ground wood.

Mr. SIMS. But what they are getting does not average so high?

Mr. ADAMS. All these figures are rough wood.

The CHAIRMAN. They figure about a ton of ground wood to the ton and half a ton of sulphite. Of course the cost of ground wood would be affected by the smaller amount of ground wood and the larger amount of sulphite per ton of paper in the western mills. That would make some difference.

Mr. ADAMS. Yes.

Mr. NEILL. That is, it would be based upon a smaller quantity in the western mills and a larger quantity in the eastern mills for the same period.

The CHAIRMAN. What are your figures of percentages of ground wood and sulphite in the western mills per ton of paper?

Mr. ADAMS. Four hundred and ninety-two pounds sulphite to a ton in 1900.

The CHAIRMAN. And how much ground wood? Of course I could figure it out. I did not know but what you had it there already.

Mr. ADAMS. We have the figures that they used.

The CHAIRMAN. That would be 1,508 pounds of ground wood?

Mr. ADAMS. Approximately; about 1,600 pounds of ground wood. I have the total for the eastern and western ground woods.

The CHAIRMAN. Now give us the comparative amount used in the eastern and western mills of ground wood and sulphite per ton of paper, if you have that.

Mr. ADAMS. I have the total for the East and West for the three years. I have not the figures filled in here.

The CHAIRMAN. Where did you get the western?

Mr. ADAMS. For the sulphite I have that all filled in. You see this is filled in in pencil, just as we left the office. I have not had time to get that verified.

The CHAIRMAN. According to your figures, in 1900 the western mills used an average of 492 pounds of sulphite per ton of paper, and the eastern mills 527 pounds per ton of paper. In 1905 the western mills had gone up to 551 pounds of sulphite per ton of paper, and the eastern mills had gone down to 474, and in 1907 the western mills had gone down to 524 pounds of sulphite per ton of paper and the eastern mills 473.

Mr. ADAMS. That is an increase for the western and a decrease for the eastern.

The CHAIRMAN. A marked increase for the western and a decrease for the eastern from 1900 to 1905, but not so much difference from 1905 to 1907. I do not see where you get these totals here.

This statement, furnished by Mr. Neill, can go into the record:

News print paper.

	Total production (tons).	Average amount of wages paid in producing 1 ton of news print paper (from first work in forest).					
		Wages in forest operation.		Wages in ground- wood mill.	Wages in sulphite mill.	Wages in paper mill.	Total wages (per ton).
		For ground wood.	For sul- phite.				
1907:							
Eastern mills.....	390,549	\$3.55	\$1.88	\$2.50	\$1.48	\$4.54	\$13.95
Western mills.....	41,385	2.47	1.75	2.18	1.66	3.08	11.74
Total (18 mills).....	421,934	3.44	1.86	2.47	1.50	4.46	13.73
1905:							
Eastern mills.....	341,138	3.17	1.67	2.34	1.35	4.21	12.74
Western mills.....	39,219	2.14	1.42	2.09	1.41	3.27	10.33
Total (18 mills).....	380,357	3.07	1.64	2.32	1.36	4.11	12.50
1900:							
Eastern mills.....	328,121	2.12	1.34	2.02	1.28	3.83	10.59
Western mills.....	35,654	2.25	1.13	2.19	1.29	3.14	10.00
Total (18 mills).....	363,775	2.13	1.32	2.04	1.28	3.76	10.53
1897, eastern (4 mills).....	23,817	1.84	0.77	2.16	1.25	4.72	10.74
1900, eastern (4 mills).....	30,737	1.97	1.11	2.13	1.22	4.17	10.60

The CHAIRMAN. If you have it in any different form we will put it in also.

Mr. ADAMS. We have the same thing for ground wood per ton of sulphite, and the same thing for ground wood.

The CHAIRMAN. Yes; we want it all. Anything that you have we had better print. You always want the thing you do not put in, you know.

Now, you have a statement here showing the average amount paid in wages in producing 1 ton of ground-wood pulp from the first work in the forest, and the same as to sulphite pulp in eastern and western mills. Now, how many eastern mills and how many western mills? It says 20 mills in the total.

Mr. ADAMS. Three western mills in ground wood. We have only 7 sulphite mills.

Mr. NEILL. In the ground-wood pulp mills how many eastern mills have you there?

Mr. ADAMS. I think there should be 21 mills instead of 20, if my memory serves me right. We have 17 eastern ground-wood mills and 3 western. Yes; 20 is correct.

The CHAIRMAN. This would show in 1897, the average in 5 eastern mills of wages in the forest in producing wood enough for 1 ton of ground wood, \$1.90, and in 1907 in 17 eastern mills, \$4.17. It shows an increase from \$1.90 in 1897 to \$2.63 in 1900.

Mr. NEILL. You notice there, Mr. Chairman, in those same 5 mills in 1900 they have only gotten to \$2.19.

The CHAIRMAN. Yes. It shows forest wages in 1897 in 5 mills, eastern mills, \$1.90, and in the same 5 mills in 1900, \$2.19, and in 17 mills,

which I suppose include the 5, \$2.63; in 1905, \$3.72, and in 1907, \$4.17; while it shows that as to 3 western mills the forest wages per ton of ground wood in 1900 were \$2.55; in 1905, \$2.52, a reduction of 3 cents, and in 1907, \$2.87. That would show a difference in the forest cost per ton of ground wood in 1907 between \$2.87 for the western mills and \$4.17 for the eastern mills, or \$1.30 difference, which, as I remarked before, I think is incredible.

Mr. NEILL. You think that is too high, too great a difference?

The CHAIRMAN. Yes; I think it is a difference that is entirely unjustified by natural conditions, unjustified by the relative wages paid. Now, whether they have more extravagant methods of lumbering in the East I do not know; I presume not. The difference might possibly be accounted for in this way: The amount of pulp wood per acre in the woods is not nearly so great in the East as a rule as it is in many places in the West. In Minnesota, where the western pulp wood comes from, in many places it is extremely thick, and a considerable quantity of pulp wood is cut there. They cut it where it runs from 25 to 40 cords per acre. But it is all small stuff. Much of the eastern pulp wood is large logs. It is also possible that it might be accounted for by the fact that in the East probably they save more tops for pulp than they do for those western mills.

Mr. NEILL. A man might get a larger amount for a certain amount of cutting.

The CHAIRMAN. It certainly can not be accounted for by the schedule of wages per man, and I can not find what figures it is based upon.

Mr. ADAMS. I think in the East men cutting pulp wood cut pulp wood alone, in the majority of cases, and in the West we found those big lumbering companies were going into the forests and cutting everything, and then separating the wood for pulp and wood for other purposes. They were not selecting the wood in the forests as much as they do in the East.

The CHAIRMAN. I am not sure that you are correct about that, but you may be. In some of the western country they go through the forest and cut the large stuff out first for saw logs. They do not cut the pulp wood at all. Then the next year following, or as soon as they can, they send another gang through, that cuts everything clean for pulp wood. That is the policy pursued by the big Weyerhaeuser concern. In every case, however, where they cut pulp wood in large quantities, where they get a good saw log they use it for a saw log, whether it is in the East or West.

Mr. NEILL. As to these figures concerning the millwork, I gave instructions that wherever there is any difference at all they should inquire into the cause of it. I do not know whether the men who went into the woods did that or not.

Mr. ADAMS. I think that was done.

The CHAIRMAN. You will notice by the table that the wages in the forest for the ground wood per ton in the western mills were \$2.87 and in the eastern mills \$4.17, a difference of \$1.30, while the wages in the forest per ton of sulphite were \$6.09 in the western mills and \$7.10 in the eastern mills, a difference of only 99 cents.

Mr. NEILL. That is due, undoubtedly, to the fact that they use a larger amount of wood to make a ton of sulphite.

The CHAIRMAN. I apprehend the wages are very much the same for cutting hemlock or spruce, but of course the material for sulphite in the western mills is cut in Wisconsin. It is hemlock.

Mr. NEILL. They use more wood, do they not, Mr. Adams, in the West to make a ton of sulphite than they do in the East? This is not the cost of producing a ton of wood, but the cost of producing enough to make a ton of sulphite, and they require more wood in the West than in the East.

The CHAIRMAN. What I was calling attention to was the fact that there was only 99 cents difference in the forest wages in getting out two cords of wood, and \$1.30 in getting out one cord of wood.

Mr. ADAMS. It is 2.19 in the West and 2.16 in the East. The eastern mills use more ground wood than the western mills, so there is a partial accounting for that difference.

The CHAIRMAN. Let us see. What are those figures, then? What are your figures? It is 1.10 cords per ton for the ground wood in the western mills?

Mr. ADAMS. 1.10 for the ground wood in the western mills, and in the eastern mills 1.11; a slight increase.

The CHAIRMAN. That is practically the same. That would not explain the discrepancies in the forest wages.

Mr. ADAMS. No. I was trying to account for the fact that there was not as great a difference in the production of sulphite as there was in the production of ground wood.

The CHAIRMAN. What is the amount of wood used in the western mills for a ton of sulphite?

Mr. ADAMS. 2.19.

The CHAIRMAN. And in the eastern mills?

Mr. ADAMS. 2.16.

The CHAIRMAN. There is not much difference. Three-hundredths out of several hundred hundredths do not cut any figure.

Mr. NEILL. Is the same wood used there?

Mr. ADAMS. No, sir.

The CHAIRMAN. In the eastern mills they use spruce for both, and in the western mills they use hemlock for sulphite, in the main. They do in these mills that you have taken, and spruce for ground wood; and hemlock is cut in Wisconsin and the spruce in Minnesota. But there is no great difference of cost, I take it, between Minnesota and Wisconsin.

Mr. ADAMS. In Wisconsin they could get at the hemlock more accessibly, so that their wage cost per cord was not so great as it was for the spruce in Minnesota.

The CHAIRMAN. In either place they have got to do it on a regular lumbering scale.

Mr. NEILL. The cost of producing spruce in the West was \$2.60 as against \$2.85 for hemlock per cord; that is a difference of 25 cents. That was in the cutting. It was \$2.25 per cord for cutting and hauling spruce and \$2.50 for cutting and hauling hemlock. In two cords that would make a difference of 50 cents.

The CHAIRMAN. But the difference here is just the other way.

Mr. NEILL. The western cost here is too high, is it not?

The CHAIRMAN. I do not undertake to say about that, but it would look at first glance as though there was too great a difference between

the eastern and western mills as to the wage cost of spruce as compared with sulphite.

Mr. ADAMS. That was one special mill that had hard luck in 1907. You will notice there was a far greater difference in 1905. I remember the incident very well, and that mill has assured me three times that their figures were absolutely correct, that their wage cost per ton was excessively high in that year, 1907. One mill makes that difference.

The CHAIRMAN. What mill was that?

Mr. ADAMS. The Combined Locks. Their sulphite cost in 1907 was excessive as compared with their cost for 1905 and 1900, and there was no corresponding increase in the rates of wages. It might be that they probably burned up a good deal of sulphite, or something like that.

Mr. NEILL. There is more hemlock used in the West.

The CHAIRMAN. There is not so much hemlock used in the East for making sulphite. In Wisconsin it is used extensively.

Mr. ADAMS. They say in the East they are beginning to use it now.

The CHAIRMAN. Now, here is a statement showing the average amount of wages, including board, paid in producing 1 cord of rough pulp wood for news-print paper. I suppose that heading "for news-print paper" ought to go out there.

Mr. ADAMS. That was put in because we took the figures from the men who were supplying the mills for news-print paper.

The CHAIRMAN. I know; but they supply pulp wood at the same rate.

Mr. NEILL. In following down the cost we went to particular men who furnished the particular wood. That could be stricken out.

The CHAIRMAN. This is the same number of mills?

Mr. ADAMS. Sometimes we have three or four contractors furnishing one mill. I do not know the number of contractors represented there.

The CHAIRMAN. It is from a certain number of mills?

Mr. ADAMS. Yes. Contractors furnishing wood to the mills we use.

The CHAIRMAN. You show an increase for the western mills from \$1.95 per cord in 1900 to \$2.25 in 1907, and an increase in the eastern mills from \$1.76 in 1900 to \$3.32 in 1907.

Mr. NEILL. The same difference runs all the way through.

Mr. ADAMS. In 1900 one of these contractors had a very big contract, and you see the number of cords cut out in 1900 was very much larger than in 1905. It was very accessible wood, and he reduced his cost very much per cord.

The CHAIRMAN. You have in the western mills total production of cords 2,626. That would not be very much of a contract.

Mr. NEILL. No. He was speaking of the eastern mills. In 1900 there were 104,046 cords, while in 1907 only 52,706 were gotten out. The western figures there are estimated.

Mr. ADAMS. We could not get actual wage figures in some cases. The contractors in some cases could give us figures only from memory.

The CHAIRMAN. I do not know, but I think I have seen piled up during the past summer in the West 300,000 cords of pulp wood. This would not go very far toward disposing of that.

Mr. NEILL. The western figures all the way through, Mr. Chairman, are too small to be representative here.

The CHAIRMAN. I fear they are erroneous.

Mr. ADAMS. I think they may give erroneous impressions. I think they are exact from the ground we were able to cover.

The CHAIRMAN. It might be that they picked up some contractor who undertook to get a little wood where he was, at home, or something of that sort.

Mr. ADAMS. We went to those big Duluth cutting firms, and—

The CHAIRMAN. None of those Duluth wood-cutting firms furnish only 2,500 cords a year.

Mr. ADAMS. We do not know how much they cut. The wage cost per cord there is what these firms gave from their books without giving the number of cords cut. We simply estimated the number of cords used to make our average for the eastern and western. The cords for the western have no bearing whatever, except that we use the same proportion as we use for the eastern to make our total average.

Mr. NEILL. The same firm would sometimes be paying two or three different prices for its wood, getting it in different sections. I imagine if you were to take the actual cost of producing wood—take the International, for example—you would find it varies in cost very largely, I think.

Mr. ADAMS. I think we have seven or eight accounts from one man, and the variations were almost beyond belief until they were verified.

The CHAIRMAN. Wood pulp has about as stable a market, when there is a demand for it, as potatoes or any other commodity?

Mr. NEILL. The price might be stable, but the actual cost of cutting in the forest would vary. Of course, those who are cutting at a much lower cost are getting much larger profits on their sales.

The CHAIRMAN. This would show an increase from 1897 in the eastern mills from \$1.18 per cord for wages in the forest to \$3.32.

Mr. ADAMS. The same firms were used in 1905 and 1907, but in 1897 we chanced to get some old figures from firms now out of existence. The records were in extremely good shape.

The CHAIRMAN. That would show a remarkably great increase in the wages from 1897 to 1907.

Mr. ADAMS. I think the wages show the same amount of increase.

The CHAIRMAN. I have no doubt there was a great increase.

Mr. NEILL. These western figures on wood are so small that they are not representative.

The CHAIRMAN. He says those figures are arbitrary. He says they were merely arbitrary figures.

Mr. NEILL. Yes. They are an estimate, even if they are 100 per cent out.

The CHAIRMAN. They are not an estimate, but he took arbitrary figures in order to compare the western with the eastern figures, so that the amount might, as a matter of fact, be much larger.

You can insert this in the record:

GROUND-WOOD PULP.

	Total production (tons).	Average amount of wages paid in producing 1 ton of ground-wood pulp (from first work in forest).		
		In forest operation.	In ground- wood mill.	Total (per ton).
1907.				
Eastern mills	252,098	\$4.17	\$3.05	\$7.22
Western mills	32,625	2.87	2.57	5.44
Total (20 mills)	284,723	4.018	2.996	7.014
1905.				
Eastern mills	236,580	3.72	2.90	6.62
Western mills	33,431	2.52	2.48	5.00
Total (20 mills)	270,011	3.57	2.85	6.42
1900.				
Eastern mills	210,419	2.63	2.65	5.28
Western mills	23,450	2.65	2.45	5.03
Total (20 mills)	233,869	2.62	2.63	5.25
1897.				
Eastern (5 mills)	35,537	1.90	2.44	4.34
1900.				
Eastern (5 mills)	43,765	2.19	2.52	4.71

SULPHITE PULP.

	Total production (tons).	Average amount of wages paid in producing 1 ton of sulphite pulp (from first work in forest).		
		In forest operation.	In sulphite mill.	Total (per ton).
1907.				
Eastern mills	146,769	\$7.10	\$6.17	\$13.27
Western mills	4,370	6.09	6.55	12.64
Total (7 mills)	151,139	7.071	6.184	13.255
1905.				
Eastern mills	135,231	6.22	5.35	11.57
Western mills	5,533	4.17	4.91	9.08
Total (7 mills)	140,764	6.13	5.34	11.47
1900.				
Eastern mills	129,593	4.57	4.83	9.40
Western mills	3,369	4.60	5.63	10.23
Total (7 mills)	132,962	4.57	4.85	9.42
1897.				
Eastern (3 mills)	41,868	3.23	4.85	8.08
1900.				
Eastern (3 mills)	82,762	4.24	4.80	9.04

PULP WOOD, SPRUCE.

	Total production (cords).	Average amount of wages (including board) paid in producing 1 cord of rough pulp wood.		
		For cutting and hauling.	For driving or loading.	Total (per cord).
1907.				
Eastern.....	52,706	\$3.32	\$0.42	\$3.74
Western.....	a 2,636	2.25	.35	2.60
Total.....	55,342	3.26	.42	3.68
1905.				
Eastern.....	44,755	3.04	.41	3.45
Western.....	a 3,829	1.95	.35	2.30
Total.....	48,584	2.96	.40	3.36
1900.				
Eastern.....	104,046	1.76	.37	2.13
Western.....	a 6,933	1.95	.35	2.30
Total.....	110,979	1.77	.37	2.14
1897.				
Eastern.....	45,232	1.18	.35	1.53

PULP WOOD, HEMLOCK.

1907.				
Western.....	a 5,672	\$2.50	\$0.35	\$2.85
1905.				
Western.....	a 3,829	2.40	.35	2.75

a Estimated.

The CHAIRMAN. Have you some more tables there?

Mr. NEILL. No, sir; we are unable to get our wage tables completed. There are nearly 200 occupations, and to get a proper average out of those is a very complicated and serious proposition.

The statement made by Mr. Lyman recently that the figures compiled by the Bureau of Labor indicated an increase of 94 per cent is perhaps misleading, inasmuch as the Bureau of Labor was in no way responsible whatever for the computations showing 94 per cent increase. We did take certain figures from Mr. Lyman's records and brought them all in one place, and gave him copies of them. What methods were used for getting his results we know nothing whatever about, and are not in the slightest responsible for any figures produced.

The CHAIRMAN. Can you give us a copy of this statement that you have referred to—this statement of Mr. Lyman's? Did not Mr. Lyman publish that statement?

Mr. NEILL. It appears in the hearings of the Ways and Means Committee.

The CHAIRMAN. We will consider those hearings as a part of ours, and they will probably be published in our hearings.

Mr. NEILL. It is going to be a very difficult thing to come to any kind of a satisfactory conclusion in showing the changes in rates of

wages and the increases in the various occupations; and to get anything that would be an average of increase over a period of years is going to be extremely difficult, for the reason that the number of men employed varies from month to month, and to get figures that would be absolutely accurate would take a great deal of time.

The CHAIRMAN. The fact is, it is not so important now, in that respect, as when we commenced this investigation, because then there had been a considerable increase in the price of news-print paper, and at that time the question had been raised as to whether the increase was due to natural or artificial causes. It has now been developed, I think, that the increase in the price of news-print paper has been coincident with the increase in cost of production. But now we want to get at the question as to the wage cost in this country and in other countries, especially as relating to the tariff question.

(Adjourned at 1 p. m.)

COMMITTEE ON PAPER AND PULP INVESTIGATION,
Wednesday, December 30, 1908.

EXPERIMENTS WITH CORNSTALKS, ETC.—continued.

STATEMENT OF MR. NATHAN A. COBB, IN CHARGE OF CROP TECHNOLOGY AND FIBER INVESTIGATIONS, DEPARTMENT OF AGRICULTURE.

The CHAIRMAN. Doctor, will you give the stenographer your full name?

Mr. COBB. Nathan A. Cobb.

The CHAIRMAN. What is your position?

Mr. COBB. Agricultural technologist in the Department of Agriculture at Washington.

The CHAIRMAN. Recently what work have you been specially engaged upon?

Mr. COBB. I have only recently come to the Agricultural Department. This division has been organized since my arrival at the department for the purpose of taking up the problems that lie more particularly between the grower and the manufacturer.

The CHAIRMAN. Of what?

Mr. COBB. Of any product—that is to say, it covers textiles, foods, beverages.

The CHAIRMAN. Where were you before you came here?

Mr. COBB. I had a short contract with the sugar planters' association of Hawaii, and organized their division of pathology and physiology in their experiment station; but before that I was for five years in charge of the pathological work of the department of agriculture in Sydney, New South Wales, Australia. For three years previous I was commissioned by the Government of New South Wales to visit this country and Europe from that place to examine into agricultural industries. Previous to that I was seven years a pathologist in that same department, at Sydney.

The CHAIRMAN. You have been in charge of the pulp and paper investigation in the Bureau of Plant Industry, have you?

Mr. COBB. I have had general oversight of that investigation in connection with Doctor Galloway, the chief of the bureau.

The CHAIRMAN. Please give us such information as you can on the subject.

Mr. COBB. I should like to say, first of all, that the information I can give you, of course, is of a certain class. I do not care to give information outside of my own experience—that is, not so much from reading, and so on. I should say any evidence I could give you that would be of any particular value would result from my rather intimate knowledge of the structure of the various crops that might be used other than wood. Of course, I am more or less familiar also with the structure of wood, but I have not given that the amount of attention that I have given other crops—that is, the annual or perennial crops. That comes about from having spent a great many years in examining the tissues of these plants in connection with their diseases. And previous to that it so happens that while a professor of natural sciences in Williston, in East Hampton, Mass., I was in contact with the paper industry at Holyoke, which was at that time among the foremost paper-making towns in this country. So that from having been a trained chemist, and actually practiced it, I came to have relations with the paper industry in that town, making examinations of paper and the various chemicals that are used in making paper. At that time Holyoke was a town largely making paper from rags. Wood had not become so prominent at that time. That was about 1881 to 1887. Then I came in contact with the paper industry again in Sydney when I first went there, from the fact that Mr. H. S. Chipman, who was a prominent importer, secured for the first time the contracts with the Australian dailies for the use of American wood paper, and I was employed by him as an expert to examine the papers he imported—all papers were imported, none manufactured there—and I examined all papers on the market with reference to deciding what was their technical excellence.

The CHAIRMAN. Is there any paper manufactured in Australia now?

Mr. COBB. I believe now there are some small paper manufactories, but my knowledge is indefinite. But if paper is manufactured there it is only an insignificant amount. Practically all the paper is imported. In my time I don't think there was a single paper factory there.

You will see that that sort of contact with the paper industry, connected with my knowledge of the structure of most of our crops, this latter being obtained by examining their tissues in connection with their diseases, made a combination which I presume led Doctor Galloway to give me the general oversight of these investigations, so I came at it more from the point of view of the structure of the plant that may be used than the technological qualities of the paper after it is produced. I do not pretend to have an intimate knowledge of the manufacture of paper, or the mills, other than that which would come through frequent visiting and a natural bent for understanding machinery.

The thing that struck me most forcibly when I took this matter up was the fact that we are using paper for publication purposes that is not permanent. We are publishing the most valuable material on papers that can not last much more than half a century, and very much of it is such, owing to the demand for fine paper upon which to

put engravings, such as half tones, and the fact that the engraver can now-a-days make such fine engravings, that there is constant demand for a better surface upon which to display those engravings, and to meet that we are producing a surface and a paper that can not last, in the nature of things.

The CHAIRMAN. Do you refer to book papers?

Mr. COBB. More particularly, of course, to book paper, but there is a constant demand on the part of newspapers to use half tones; they use more and more of them.

The CHAIRMAN. News print paper is usually composed largely of ground wood, but still has an acid in it, and it practically burns up when it comes in contact with the oxygen of the air for a long time.

Mr. COBB. The filled papers oftentimes have a good fiber back of the filling. In casting about, of course, I had to take the information that was given me as to the situation here. I was not cognizant of it, having been out of the country for so many years. I understood that there was a demand for a cheaper paper of that class, and of course the fact was brought forcibly to my attention that the price of wood was increasing so rapidly that the price of paper made from it was also increasing; and it seemed to me that one of the best things to do would be to look carefully into the vegetable matter that we are producing as by-products of our biggest crops, and there came up in that connection flax, of which we burn, as straw, several million acres annually. Also of cornstalks, of which we have an immense quantity, and of rice straw, of which there is a considerable quantity, and cotton stalks. And incidentally I would class with the maize, broom corn and sorghum as possibilities perhaps, although I have not got around to take up the matter of broom corn; but I think there is good reason to believe that we have there a plant that contains valuable fiber. We have been selecting broom corn for generations for the production of a tough straw at the top for conversion into brooms, and naturally the result of that selection has been a tougher and tougher broom straw. A correlated toughness probably has arisen in the fiber cells that are in the tissues. I think, although the quantity of that plant is small at present in comparison with others we raise, that it is something which ought to be looked into. As I say, I have not yet gone beyond making inquiries as to whether it has been used, but I have evidence it has been used by Mr. Van Wyck in New York, whose address I can give you. He has written me that he has established a factory, and seems to feel confident that he will be successful in making a commercial article out of broom corn. I have had no personal acquaintance with Mr. Van Wyck, whom I think is a retired business man, and therefore didn't continue this production for that reason. He has sent me some samples of his paper. His factory has been burned.

Mr. SIMS. Made from broom corn?

Mr. COBB. Yes.

Mr. SIMS. From the straw or body?

Mr. COBB. I take it it is from the stalk. I suspect that the tops would naturally be used for brooms, but there can be little question that the tough quality of the top will extend to the stalk. The fiber of the stalk will be of toughness corresponding to that in the top.

Then, I think it wise to take into account also those wild plants which we have in considerable areas and which might possibly serve

also as a source of paper. In that connection we took into account the so-called salt marsh grass, which is not a grass at all, but a "sedge," which grows along the coast, and another plant which is the main grass of the Everglades of Florida and the South Atlantic coast, in many regions; also the bamboo of the canebrakes, which exists in considerable quantities, and is made interesting because of experiments made in the last few years in India by competent technologists, so far as I am able to judge, men of widespread reputation, looking to the successful utilization of bamboo for papers of certain qualities. And this cane, although not bamboo, is a related genus, and from its structure and production, so far as we have ascertained, we would expect a similar result.

Mr. SIMS. Did you investigate the scrub palm of the Florida Peninsula?

Mr. COBB. We have not taken that into consideration.

Mr. SIMS. I have been led to believe, by statements of certain persons, that the root has a great deal of fiber in it, and the root practically covers the entire surface.

Mr. COBB. They use that for a sort of imitation horsehair, do they not?

Mr. SIMS. I understand it contains a large percentage of fiber, but what grade of fiber I don't know, nor what value it may have.

Mr. COBB. The only contact I have had with anything like that was when in Algeria I looked carefully, in connection with Professor Swingle, of our department, into the production of imitation horsehair; and I understand this Florida palm has been successfully utilized in some such way. But I had not taken it into consideration in connection with paper production, because the quantity that would be required for any purpose in connection with the manufacture of paper would be so immense that it did not seem worth while to pay attention to the matter unless there was some particular point in connection with it.

The CHAIRMAN. We must have something that will reproduce very rapidly.

Mr. COBB. That is true. There is another point that I would bring up in connection with the matter, and that is this. In looking over the different qualities of paper that are made from different classes of fiber, it strikes one forcibly that wherever a good surface has been obtained for engravings, which means the finer sorts of printing surface, that the fibers are fine fibers. That, of course, is extremely reasonable, because if you attempt to weave a surface by means of fiber, the roughness of that surface will depend upon the diameter of the fiber, and in the finer finishing of the paper the more nearly you can get to a perfectly plane surface the better. That, of course, is what you would like to get on a good printing paper, and so I have thought it would be worth while to spend considerable money, perhaps not all at once, but systematically, employing some experts, of which we have a good number in the Department of Agriculture, in microscopically examining the tissues of plants in searching for fineness of tissue. It would not matter that the plant was not produced in enormous quantities, because the fine fiber could be used on the surface of a coarse fiber; that is to say, it could be veneered, so to speak—a cheap fiber with an expensive fiber; so it would not be so necessary, perhaps, that this fine fiber, when it is found should be very cheap.

I am very confident it can be found, because the number of plants that have been exploited for paper purposes is insignificant in comparison with the total number of species.

The CHAIRMAN. As I understand it, there is quite a difference in the character of fibers, some smooth and some very rough?

Mr. COBB. That is true. It is not merely a matter of fineness, though that is an important element in getting a surface; but it must not be too smooth. It must have a certain amount of friction-producing quality to get strength in the paper. But I think that would be an eminently proper line to systematically spend a small sum of money upon investigations of this character. I believe it is a very promising line. We are printing most valuable publications now on paper that does not last.

After looking over the field in that cursory way, we come down to the facts that we will have to deal with. The difference between all these plants and wood, of course, is that in wood there is no large fraction of cells that are of a "pithy" nature. Wood is largely made up of fibrous cells. There are a few cells that are not fibrous, but the proportion in weight is comparatively small. That is reversed when you come to all these other plants, in which the cells that are not fibrous exceed in volume the fibrous matter. All those—and this is a general statement that holds true throughout the whole vegetable world outside of the woods, that the pith cells, the parenchyma cells, being a little more exact term than pith cells—those cells are very largely of one quality; that is, their diameter is the same in every direction, and the walls are thin.

The CHAIRMAN. That is, the parenchyma cells?

Mr. COBB. Yes.

The CHAIRMAN. Tell us about the plant structure. The fiber consists in the main of cellulose, does it not?

Mr. COBB. Yes, sir; that is to say, where the fiber is dead, the water evaporated, and what little protoplasm was in the cells has dried up, the dry weight is mainly cellulose.

The CHAIRMAN. But what does the fiber consist of? Eliminate the question of water and what else is there in it?

Mr. COBB. You would have whatever salts were in solution in the sap; you would have protoplasmic matter.

The CHAIRMAN. What is the protoplasmic matter?

Mr. COBB. That is the living matter in each cell. And you would have the products of that living matter; that is to say, this living matter is like all other living matter which excretes certain things that it can use no longer, such as salts in the form of crystals, like the oxylate and carbonate of lime. All that matter remains in the tissues.

The CHAIRMAN. Take the heart of a tree; what is there in the fiber there? There is no protoplasm left there, is there?

Mr. COBB. It either died or migrated. As the tree dies from the heart out, the protoplasm, which occupies the outer layers, is derived from that which occupied the inner layers. The inner layers may serve to transport water back and forth, but there is no living matter in the heart wood of a tree. It is on the outside.

The CHAIRMAN. The living matter, the protoplasm, is in the fiber cellulose matter?

Mr. COBB. It would be confined in a tree to the cellular matter next to the bark, a thin layer, a fraction of an inch in thickness only; all the rest of that tree would be composed of dead cells. In the eucalyptus tree, with a thick bark, rapid growing, and a considerable layer of sap wood, it might run perhaps toward an inch, but as a rule only a fraction of an inch is actually alive.

The CHAIRMAN. Is this protoplasmic matter in the cells in the fiber and also in the interfiber matter?

Mr. COBB. That would depend upon the age of the different tissues. All cells would have to be built up from protoplasm. Every fiber at some time contained protoplasm, but once the fiber is built the main portion of it that would be converted into paper would contain no protoplasm.

The CHAIRMAN. Is it this protoplasmic matter that forces the sap from one cell to another?

Mr. COBB. Undoubtedly there are physical forces other than the living forces that come into play, but they are not well understood, Mr. Mann. Even the most acute investigators and observers have not been able to explain all the forces that act in a plant; but this is undoubtedly true, as a general statement, that both factors enter into the matter, the living force of the protoplasm itself and the physical forces, like capillary attraction, and so on.

The CHAIRMAN. It is perfectly patent that in a tree which is dead the water will not rise as high nor as rapidly as the sap does in the living tree?

Mr. COBB. There is no doubt whatever that the protoplasm exercises considerable power in the transmission of the matter in the tissues, but I do not think anyone would deny that there are also physical powers that work there and partly account for what happens.

I was going to say, that general fact I mentioned with regard to structure is a very important one, when you come to the making of paper out of any other plants than wood. You have to deal with the fact, which is universal, that all these plants contain a much larger proportion of pith cells—of parenchyma—than wood does. For instance, take corn stalks. There are two parts, by weight, of pith cellulose to one part of fiber cellulose, and the proportion by volume is very much greater. I presume you know the structure of the corn stalk, and have seen the little fibers scattered through. The fibers are what give rise to the long fibrous cells that can be converted into good paper, and the rest is pith. But of course the volume is perhaps five-sixths or nine-tenths pith.

Mr. SIMS. Can that portion of the stalk you refer to as pith be used practically in the manufacture of paper?

Mr. COBB. It occurs in all paper, but only in small quantities, and they would prefer to have it out, because it does not add anything to the strength.

The CHAIRMAN. Let us see if we can understand that. You take common wood, spruce wood, that is used. When it is reduced to sulphite it produces about a thousand pounds to the cord of sulphite fiber. If it ground into ground wood it produces about 2,000 pounds. The cord in itself in the first place weighs something over 4,000 pounds, of which half of it is probably moisture—about that, maybe a little more than that. Computed on the basis of dry weight, the

thousand pounds of sulphite would be the fiber. Would the other thousand pounds in the ground wood consist of what you call pith matter?

Mr. COBB. No, but some of it would be.

The CHAIRMAN. What does it consist of?

Mr. COBB. It would be resinous matter largely, and it would consist of protoplasmic residues left in every cell when the protoplasm migrates or dies, and whatever salts are contained in the wood. Those all enter into the thousand pounds. And then you would have to take into account this fact, that when you use your chemical for making the wood pulp, you dissolve the cells apart. Of course, it happens that the cells are cemented together by a natural cement, and the chemicals that act on that cement loosening the cell, will also act on the cell itself, so that the chemicals dissolve the cellular matter as well as the cement substance between.

The CHAIRMAN. Do you call the pith a "substance" or not? We usually refer to it in our hearings as the intercellular substance.

Mr. COBB. That is right in a way. To a certain extent interfibrillar substance in wood is made up of these parenchyma cells, but they constitute only a small portion of it. That is the case with wood.

Mr. SIMS. The amount of pith that is in the stalk used for pulp making is an extraneous substance so far as paper is concerned, and it has to be gotten rid of rather than utilized?

Mr. COBB. If you want to take paper in the ordinary sense of the word, yes. But that will make a substance that you might call paper. I have some samples here——

The CHAIRMAN. I think you had better go ahead with your statement until we come to that later.

Mr. COBB. It does produce a paper that resembles tissue paper, and which could be used for certain purposes, especially in case of certain plants.

Now, while the structure of those pith cells is essentially alike in different plants, still it is not the same in any two plants, and they are somewhat more transparent in some plants than in others, and they may be slightly thinner in the wall in some than others.

The CHAIRMAN. You are directing our attention to the general scheme of cells?

Mr. COBB. Yes.

The CHAIRMAN. I want to go fully into this.

Mr. COBB. You have there two groups of plants. It is not a natural grouping, but a practical grouping for our present purpose. You have trees and other plants. All these other plants are characterized by having a large quantity of pith cells, and in many cases the greater portion of the weight is made up of those. You can not use those for ordinary paper.

The CHAIRMAN. You are referring to herbaceous plants?

Mr. COBB. Yes; plants that are not trees. That is wider still.

The CHAIRMAN. That would include shrubs?

Mr. COBB. I should put shrubs with the trees; but there are many plants that we do not even think of as a basis. We do not think of palms as a basis, yet they would come in that group of nontrees. That is the distinction I make. They are not trees, and they do contain a large amount of pithy matter. In some portions of the trunk,

at the bottom, there is solid gummy matter, but the stalk and leaves contain a large amount of pithy matter. That, of course, means that you have a different sort of problem to make paper out of these plants. You have to get rid of that pithy matter.

Now, at this stage of the proceedings I will describe the process by which we got at the data. It became clear that we could never make paper from these other plants unless we had some process for the separation of the pith cells. At that time it came to my attention that this had been tried in England. I found that it had been done at Warren Brothers Mills at Cumberland, in conjunction with a man from Chicago by the name of Sherwood. I had the matter looked into and obtained samples of paper made from the pulp that had been separated by this process, and the results looked so good that I thought the best thing we could do would be to find out what Mr. Sherwood had actually done. We got him down here, had him bring his machinery. We came to the conclusion that the problem was a general one; that it did not matter so much what particular crop we took, so far as the separation was concerned. If we could do it with cornstalks, we could do it with rice straw, because the problem is essentially the same in all the plants. Then we took into consideration the fact that maize was a plant from which there was the biggest tonnage of stuff that was not utilized to advantage, not going to waste, still not utilized to advantage; and combining those two, we determined to try out this process of separation, which was claimed to be successful, and to try it on corn first.

The CHAIRMAN. Do you know, Doctor, whether or not Mr. Sherwood is connected with the National Fibre and Cellulose Company, of Kankakee, Ill.?

Mr. COBB. I do not know what the name of his company is, but it strikes me that that is the name of it, though I am not sure. I should think that his company would be a Chicago company. Is that near Chicago?

The CHAIRMAN. Kankakee—yes.

Mr. COBB. He lives at Lakeview or Lakeside, near Chicago.

The CHAIRMAN. Kankakee is about 50 miles from Chicago.

Mr. COBB. I can not tell you whether that is his company or not. I have seen samples of his product, and if you have some samples there [after examining samples]; yes, that is the man; those are his samples. Shall I give the results of that trial without going into particulars?

The CHAIRMAN. We would be glad to have you tell us about the separation.

Mr. COBB. I will not go over the ground that Mr. Sutermeister traversed, because it would be a repetition. The work has been carried out at the Forestry Service laboratory, and it will save a great deal of expense in the matter. If we had not had the laboratory we should have had to create something similar or employed private parties outside at considerable expense, and probably at much less advantage.

Now, there is no doubt that that screen effects the separation. I have had a microscopic examination made of the pulp after the separation has taken place, and have had general oversight of the material and the order in which it has been tested, and have had samples of all the products.

The CHAIRMAN. As I understand it, in a general way, that separation is effected very much on the same principle in which they get the water out of the pulp when it is going over the machine, excepting that they keep stirring it up.

Mr. COBB. That makes all the difference. It is very simple. I could not understand it from Sherwood's description; I could not get any idea how it could be done. Have you seen the machine?

The CHAIRMAN. No.

Mr. COBB. Seeing the machine makes it very clear. I have the way in which it acts very clear in my mind now, although I found extreme difficulty in getting any sort of an idea of how it acted until I saw it in operation. Then I got such a clear idea that I think I can explain it to another man.

Of course, the pulp that comes from the digester is made up of two-thirds pith cells and one-third fiber—I am speaking of the corn. That turns out to be about the dry weight result, but in bulk the proportion is even greater in favor of the pith.

The CHAIRMAN. Please describe that a little more fully so it will be clear in the record.

Mr. COBB. I will say that the cells that compose the fibrous matter from which good printing paper can be made are very long and flexible, whereas the pith cells have nearly the same diameter in every direction, although that diameter is considerably greater than the maximum diameter of any fibers. You can imagine what sort of a mixture that makes. These fibers are bent about these pith cells. The machine consists of a helicoid screw used in grain machines, a spiral affair that much resembles the ordinary screw, only what constitutes the threads of an ordinary screw in this affair are thinner and deeper. As that winds in a trough, it would naturally screw the matter forward that lay in the semicylindrical trough, but the bottom of this trough is a fine sieve. All the ordinary processes that I know much about in connection with separations in paper mills use a great deal of water. This differs from that class of separation in that it uses very little water. This pulp is put in as dry as it will drain—in an hour or something like that. It is as wet as it would be after draining.

The CHAIRMAN. But it is not floating?

Mr. COBB. Nothing like it. You can pick it up in chunks. Now that is shoved along in this trough by the motion of that screw. The result is that the friction of the screw tumbles this matter about, and there is still sufficient water in it so that if you didn't look out, as you pick up a lot of it, it would fall off at the edges. That is the consistency in which it has to be. That is constantly breaking apart. While that is happening small streams of water are playing on it, and every time it breaks apart there is disclosed a surface on which the pith cells are not completely independent of the fibrous cells, but they wash loose and go down through the sieve; and that is all there is to it.

Mr. SIMS. A process by which the pith is washed from the fibrous cells?

Mr. COBB. That is it exactly.

The CHAIRMAN. Is this machine supposed to be of commercial size?

Mr. COBB. This machine consists of two troughs about 5 feet long and 7 inches in diameter.

The CHAIRMAN. But is it of commercial size?

Mr. COBB. It is not of commercial size; no.

The CHAIRMAN. What is the diameter of that screw?

Mr. COBB. About 6 or 7 inches. I have seen these helicoids made considerably larger in grain machines, and I see no good reason why they could not be made considerably larger.

Now, as to the result. It is a good separation. I have examined the pulp microscopically and it is perfectly easy to tell how well the separation has been accomplished, and there is no question whatever but that his machine accomplishes the operation. The corn we have tried, which is a Maryland-grown sample, is getting out a fiber that averages about 1.25 millimeters—a millimeter is about one twenty-fifth of an inch—in length, and it is a fairly fine fiber.

The CHAIRMAN. That would be what proportion of an inch?

Mr. COBB. That would be about one-twentieth of an inch, approximately. That is a fair length of fibrous cell, as they occur in more woody plants. Esparto has a fiber which is largely used in Great Britain, and it is not far from that length, although it is somewhat finer than any we get from cornstalks.

The CHAIRMAN. Of course, that fiber is not so long as the ordinary wood fiber?

Mr. COBB. It is not so long, but very much finer.

The CHAIRMAN. You were telling about the Sherwood process in describing what you propose to do.

Mr. COBB. We look at this in the Bureau of Plant Industry not only from a technological point of view, but also from a strictly agricultural point of view. Naturally, as these are technological problems, we have got to have information on both sides of the question, the manufacturers' point of view as well as the growers'. Still, our face is toward the producer most of the time; that is what we are supposed to exist for; and while we want to understand these problems from the manufacturing point of view, it is particularly for the benefit of the grower.

Sherwood claims that in his processes—and there are other patentees also—that by preliminary digestion with water alone, not using any chemicals, he can get out an extract which has value as a stock food.

The CHAIRMAN. But that has nothing to do with this process?

Mr. COBB. Oh, it has a great deal to do with the success or non-success of the process.

Mr. SIMS. It has nothing to do with the making of paper?

Mr. COBB. No; but whether that process can be used.

The CHAIRMAN. It has a great deal to do with the use of cornstalks by any process. That is what I wanted to know, whether he had any special process with reference to running water over cornstalks that were cut up.

Mr. COBB. Yes; he has a special patent granted him, and there are others who also have patents; I think perhaps five or six different parties, covering this field, even specifically applied to cornstalks, so that it is a widespread idea, and the question that arose with us was whether there was not a by-product of possible value that had an

important bearing on the use of cornstalks as a material for making papers. If cornstalks were poisonous, like cotton stalks, we would not expect to get anything of value, unless it was a drug. Of course, we knew the fodder value of cornstalks, and we also knew that one of the principal drawbacks to the use of cornstalks as fodder is that the animal has to manage such a bulk of nondigestible matter to get the nutriment that its value is much reduced; in fact, many farmers do not use it at all and allow it to rot in the fields. As the paper-mill processes permit the application of high temperature under great pressure, it was extremely reasonable to suppose that they might extract a maximum amount of this matter that could be used as stock food. We have also tried that out. We have not been able to obtain as high pressure with the apparatus we had as perhaps might be desirable, but still we have had fair conditions. As a result we have discovered several things. One is that we can not come up to the claims of the process. It was claimed that something like 300 pounds could be obtained, and that this would probably pay for the process up to that point. If that was so, it was important.

But I do not want to say anything more than this: My opinion is that that particular claim is in the balance. I do not know what the outcome is to be; I wouldn't like to say whether it is going to prove of sufficient value to offset the disadvantages, or not; but I do think this, that it looks promising enough at present to not only justify, but, in my opinion, demand further investigation.

The CHAIRMAN. What do you mean by "looks promising?" Are you talking about the by-product now?

Mr. COBB. Our experiments are on such a scale that we are not able to give a sound judgment as to the commercial value. That can not be done until the process is carried out on a larger scale. We can get results that indicate, one way or the other, whether the thing ought to be carried further; but with a small outfit like this one at the Forestry Service, we can not do more than that.

We get the same amount that the patentees claim—that is, about 300 pounds of extract—but this point has come out: We have the analyses that were made by competent chemists, and I am thoroughly confident that they are right. I have gained confidence in the whole thing as they have worked it out, although I think they claim at least all that can reasonably be claimed. Perhaps that statement is not quite strong enough. I think perhaps they claim a little too much. I have, however, gained confidence in the results they have obtained. I know something of the chemists who made the analyses, and I do not believe they could be induced to state anything that was incorrect.

The CHAIRMAN. I suppose that there is no difficulty in obtaining a chemical analysis to show what these by-products consist of, and how much may be extracted under certain conditions from cornstalks?

Mr. COBB. True; but you know too what a tremendous number of misstatements float around, and when one hears claims made for this, that, and the other, one is sometimes very skeptical.

The CHAIRMAN. We are not interested in what they claim, but what you find.

Mr. COBB. We had to determine the value of the claims that these people made. Naturally I went into that with a good deal of

skepticism. 'I thought it looked reasonable, but that the figures were too high, and that perhaps the best thing to do was to try it. We got about the same amount of extract that they did. We experimented on Maryland-grown corn. By the Sherwood process they showed that this extract contained about 10 per cent—these figures are all rough—of nitrogenous matter; supposed to be thoroughly digestible nitrogenous matter, and of the highest food value.

The CHAIRMAN. Ten per cent of what?

Mr. COBB. Proteids.

The CHAIRMAN. Ten per cent of what?

Mr. COBB. Of dry weight.

The CHAIRMAN. Of cornstalks?

Mr. COBB. No; of the extract. Ten per cent of the dry weight of the stock food.

The CHAIRMAN. Do you mean that if there are 300 pounds of extract that about 10 per cent are proteids?

Mr. COBB. Yes; and they got about 18 per cent of the saccharine matter. I take it that their results must have been obtained from fresh cornstalks. And I ought to say, too—what I have not said earlier—that we had to go at this thing under considerable disadvantage. The money voted by Congress was turned over to us in the early part of the fiscal year, when no fresh crop material was available. To have the best material we would have had to wait for the stuff to grow, so that we could not go at this with the speed that we otherwise would have done. We had to use cornstalks a year old. That brought out this fact, that we were not able to obtain from such cornstalks anything like the saccharine matter that they obtained by the previous experiments. I presume that is explained by the fact that we had to use cornstalks a year old. Everyone knows that cornstalks, no matter how well they are kept, will become less valuable in a year, and that means at the expense of the saccharine matter. It is significant, however, from our results with the Maryland cornstalks, that the saccharine matter was only about 3 per cent. The saccharine matter from the stalks obtained by Sherwood's experiments was 18.4 per cent.

The CHAIRMAN. But we do not care what his experiments were; we want to know what your experiments were. We do not want you to testify as to what Sherwood obtained.

Mr. COBB. No; that is right. But I am pointing out that the results that we did obtain were very much lower as regards saccharine matter than the claims that were made for the process we set out to examine.

The CHAIRMAN. It is all right to say what was claimed.

Mr. SIMS. That is all he did.

Mr. COBB. I believe I can give the explanation of that, but of course it remains to be seen whether my explanation is correct. Simply that we used stalks a year old.

Mr. SIMS. That is, the stalks you used were a year old and the stalks he used were fresh?

Mr. COBB. Yes; I think that would just about account for that difference. That throws a very different light on the value of that stock food as a by-product. Of nitrogenous matter, which is most important as a food material, we get about the same that they claim, but of the saccharine matter very much less, and that would considerably reduce the food value of that material.

The CHAIRMAN. You say you get 3 per cent. I understood Mr. Sutermeister to say the other day that about one-half of the 300 pounds was glucose, the other saccharine matter.

Mr. COBB. I have the figures before me as furnished by the Bureau of Chemistry, and they would be the source of whatever information he has also.

The CHAIRMAN. He must have been mistaken about that, then.

Mr. COBB. Of course I do not know what he said, but at any rate these are the facts. There is no question about the food value of this material.

The CHAIRMAN. What is the rest of it? You have 10 per cent and 3 per cent. Of what does the rest of it consist?

Mr. COBB. That brings me back to the agricultural point of view. The rest of it, as returned in the analysis, is saline or mineral matter. From an agricultural point of view it is very undesirable to send off from a farm any matter that would be of manurial value, and it seems to us, looking at this process as carefully as we can, we come repeatedly to the conclusion, no matter from what point we begin to reason, that if a paper factory could be started in the corn belt at a center where plenty of maize was available, by a system of barter which would be a favorable sort of trade, under proper regulations, the farmer could get back from the paper mill this stock-food material to use; that would be valuable to him again as manure, after feeding to his stock, of course. That is, he is depriving his farm only of cellulose matter that does not cost him anything. He gets that from the air free of cost. He does not have to pay a cent for it. All of these mineral matters contained in this stock food, such as potash, and so forth, he has to pay for if they are not present on his farm. Supposing he gets that back from a paper mill and uses it, he does not lose it. From an agricultural point of view it is good practice.

The CHAIRMAN. It may be good practice from an agricultural point of view, but what we want to find out now is what this by-product really consists of, and whether it will pay the farmer to sell this manurial matter and buy it back.

Mr. COBB. There is what it contains; those are the two principal ingredients returned in the report.

The CHAIRMAN. What is the rest of it, Doctor?

Mr. COBB. Well, the analysis figures give these. They are furnished by the Bureau of Chemistry, to whom we naturally turn for analyses of this kind. Doctor Wiley's figures are as follows:

Analysis.

Miscellaneous Division No.	Moisture.	Ash.	Insoluble.	Protein.	Glucose.	Sucrose.	Non-sugars.
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
6243 ^a	3.42	22.18	14.34	10.38	2.43	0.56	.....
6244.....	40.05	18.02	7.68	7.31	.559	.481	.....
6245.....	9.28	29.36	15.16	12.13	1.18	1.00	.....

^a Per cent solid in original solution 0.6806.

Mr. COBB. The balance of the 100 per cent consists of carbohydrates largely and also has considerable food value. They are, however, too indefinite for chemical determination.

The CHAIRMAN (inspecting samples). These are three different samples.

Mr. COBB. Those are three different cooks; that is to say, the different cooks that are made for the purpose of finding out the best combination of chemical, time, pressure, and so on. In order to determine the very best combination for any given material, you have to simply try different combinations, and that is what they have been doing, and that is what all these samples that they brought you over from the forest service mean.

The CHAIRMAN. I see here a very wide variation in the different samples. In one the moisture is given as 3.42 per cent, and the next one at 40.5.

Mr. COBB. They sent over a special note on that from the Bureau of Chemistry, that it would be necessary to allow a factor there in order to bring that series of results to the same basis as the others, and that calculation has not yet been made.

The CHAIRMAN. In one of these glucose is given as 2.43 per cent, in one as 0.5 of 1 per cent, and in the other as 1.18 per cent. Sucrose is given in one as 0.56 of 1 per cent, in another at 0.48 of 1 per cent, and in the other at 1 per cent. That would not be an average of 3 per cent of saccharine matter.

Mr. COBB. You have to add the glucose and sucrose together to get the saccharine matter.

The CHAIRMAN. That would not make an average of 3 per cent.

Mr. COBB. No; I do not presume that is an average; that is the highest one there.

The CHAIRMAN. There would not appear to be any very great value to this by-product.

Mr. COBB. There is the nitrogenous matter; that is valuable food, far more valuable than the saccharine matter.

The CHAIRMAN. Yes; there is 10 per cent of proteid matter, which would hardly be considered a profitable food if nothing else of food value was in it.

Mr. COBB. I do not know whether Mr. Sutermeister brought out this point, but I presume he did, that this first treatment ought not to be taken altogether in the light of producing this stock food, because it reduces the amount of chemical that would be necessary in the subsequent treatments. All this matter would have to be destroyed or removed otherwise.

The CHAIRMAN. That is true. The point is whether the taking out that so-called stock food is of itself a very profitable operation, so as to reduce the expense of reducing the rest to fiber.

Mr. COBB. Yes; that is the whole question.

The CHAIRMAN. Apparently that 300 pounds of the extract there is not of any very great value.

Mr. COBB. I do not know yet what its value is.

The CHAIRMAN. I mean any very great value as a food.

Mr. COBB. I would not like to make an estimate in dollars and cents of the value per ton of the material obtained in that way, but we shall obtain that, and we are obtaining it now. The same sort of material is in constant use as stock food.

The CHAIRMAN. In what respect?

Mr. COBB. In Hawaii they have a very similar product as a result of sugar boiling, and that is one of the principal ingredients in the rations

for the mules, which are the only animals they use on the plantations as draft animals. They use this waste molasses, which closely resembles this, with the cane tops, as a ration for the mules. They also use it on the cattle ranches in Hawaii.

The CHAIRMAN. Does that not have more than 3 per cent of saccharine matter?

Mr. COBB. It would be more than 3 per cent; yes; but I doubt whether it would be more than 18 per cent.

The CHAIRMAN. There is a wide variation between 3 per cent and 18 per cent?

Mr. COBB. Yes; that is the variation between our figures and these of Sherwood's.

The CHAIRMAN. It is a variation between the claims that have been made and the actual experiments that you have made?

Mr. COBB. That is right.

The CHAIRMAN. Go ahead with your experiment, Doctor.

Mr. COBB. It is a fair proposition to consider that first digestion with water alone, as it does yield this food product, a product concerning whose value as food there can be no question; I do not say whose exact value. If you had it, you would feed it to your stock; that is the point. I am not arguing for its great value or anything of that sort, but considering the fact that a food product can be obtained that has value, and also the fact that that same process renders the cornstalks more amenable to the rest of the process, it is a fair consideration to take into account whether that may not prove a profitable thing. We are just in this condition at present; we have not given any decision one way or the other. We have obtained the product. We know how much there is from our particular experiments, and we will, as soon as we can get at it, have other experiments with fresher cornstalks. We are submitting this stock food to the actual farmers in samples for estimates as to its value, but we have not yet received any returns. We only got the returns from the Bureau of Chemistry this week, and we are now sending out the samples to the men who deal with that class of product and asking them for their estimate of its value for any purpose whatever, not only for stock food, but if it can be used for making commercial alcohol or anything else.

The CHAIRMAN. Could it be used for making fertilizer?

Mr. COBB. Yes, it could; but I doubt very much whether it would be worth as much for that purpose as it would for other purposes.

Then the next thing that we took into consideration, or not exactly the next thing, but that which I will bring up here next, is the difficulty that will arise in connection with any attempt to convert cornstalks into paper, owing to the bulk of the raw material. That is something that I think I have given more attention to than anybody else has, and there I can see very considerable difficulties. Even a small paper mill requires an immense tonnage of stuff, and you can not bale this cornstalk stuff up and put it into small bulk. If you do, it will spoil. Not only will you fail to get this extract, but the fiber itself will deteriorate.

The CHAIRMAN. How do you mean; from what cause?

Mr. COBB. From the heat of fermentation. The moment you press cornstalks into bales they begin to spoil. The only way you can keep cornstalks good and sweet as fodder is to give them air. That is a well-known fact.

The CHAIRMAN. The great difficulty now in handling corn stover, which is cornstalks cut up on a farm, is to keep it from fermenting and spoiling, even where it is thrown loose in a bin.

Mr. COBB. Of course. That refers not only to getting out this extract, but if it ferments, the heat itself may destroy the value of the fiber; and that means that this stuff has to be handled, not compressed. Now, look at the space that would be required—storage space.

Mr. SIMS. And freight space.

Mr. COBB. And freight space for that stuff.

The CHAIRMAN. I asked Mr. Sutermeister how many cords there were in a ton of cornstalks. Can you tell us that?

Mr. COBB. No, I could not. It would depend entirely on how they are packed; it would be a very difficult thing to tell.

The CHAIRMAN. I do not mean compressed. How many cords would there be in an average ton of cornstalks piled up?

Mr. COBB. It would be purely guesswork; it would not take long to make an experiment.

The CHAIRMAN. That is the very first thing that we ought to know in judging as to the value of this cornstalk proposition.

Mr. COBB. There is no question at all about its being much more bulky than wood, but as to giving you the exact figure, I would not like to do it. It would be pure guesswork, and rather than hazard that, I would prefer to take cornstalks and make an actual experiment, and we could get the figure in half a day.

The CHAIRMAN. That goes right to the essence of the question as to the commercial possibilities of handling cornstalks. What would be your approximate judgment, then?

Mr. COBB. I would say that a shock of cornstalks, approximately 4 by 4 by 4, might weigh 300 pounds. It would depend on their dryness.

The CHAIRMAN. According to your guess, then, it would be about 7 cords to the ton?

Mr. COBB. And a cord of wood, as you were saying, goes to about 4,000 pounds.

The CHAIRMAN. A cord of fresh spruce goes about 3,500 to 4,000 pounds, according to the dryness of it.

Mr. COBB. It is really a very difficult thing to estimate on cornstalks, because though I put cornstalks up one way, another man puts them up another way. There are the tassels and the leaves.

The CHAIRMAN. Mr. Sutermeister guessed it would take about 3 cords to the ton.

Mr. COBB. Three cords of cornstalks to weigh a ton?

The CHAIRMAN. He did not undertake to say exactly; it was a pure guess.

Mr. COBB. If you cut off the tops and feed off the leaves, as a farmer naturally would, I do not believe he is very far off.

The CHAIRMAN. I am talking about cornstalks that would be used for paper making, from which you would not take the trouble to take off the tops or the leaves.

Mr. COBB. I guess, Mr. Mann, that they would feed those off some way.

The CHAIRMAN. There is no way of feeding them off without cutting them off or turning cattle in on them, in either of which case the cornstalks would be ruined.

Mr. COBB. They have to be kept fairly clean for paper purposes; there is no doubt about that.

Mr. SIMS. I think Mr. Sutermeister meant to be baled.

The CHAIRMAN. No; I think not.

Mr. SIMS. I am not positive about it.

The CHAIRMAN. I suppose he had no better idea of it than we had; we asked him to give his opinion in regard to it.

Mr. COBB. There is no question at all; it is such a bulky material that the matter of storage is a serious question. Of course, up to spring, I suppose it would work out in this way, that the corn would stand in the field, which is a well-known thing. That portion of the storage does not seem to me to present any serious difficulties, but from the time the farmer wants his land, then it would be a serious problem.

The CHAIRMAN. Have you considered the advisability of making experiments with cornstalks with a view of producing not corn, but stalks suitable for paper making?

Mr. COBB. Yes, sir.

The CHAIRMAN. Has any experiment been carried on designed for that purpose?

Mr. COBB. I have here my outline for that. When the money was first voted on your recommendation, that idea was taken up among the very first.

The CHAIRMAN. It might be possible, I suppose, to get a stalk, either a cornstalk or broom stalk or cane stalk, which would have very little saccharine matter in it. We might reduce the quantity of the pithy matter in it, and certainly get away from the idea of the corn. In other words, from my own point of view, it is absolutely impracticable to make paper cheaply out of the refuse cornstalks left on a farmer's field after taking the corn, but a plant growing so rapidly and doing so well in much of our temperate climate, it might be possible to develop a cornstalk for use in paper making which could be raised in large quantities immediately around the place where it could be worked up.

Mr. COBB. That is something that I have gone into. I have taken it up from a little different point of view from what you have, I think, because I rather considered the combining of these two things rather than growing a cornstalk especially for paper. My course was this: I went to Mr. Hartley, our corn expert, and said: "Mr. Hartley, you have charge of a lot of experiments with corn and are growing a great number of varieties. Could you not make some observations on the different varieties of corn that you are growing with reference to the probable amount of fiber that they contain? There is no reason to suppose that corn does not vary just as much in this respect as it does in any other." He agreed. If there is one variety of corn, a variety that is characterized by a larger amount of fiber and a smaller amount of pith than the others, that is the corn we want to get onto for this purpose.

The CHAIRMAN. Of course, they have done almost everything with corn. They not only find that they can develop corn in color or in cob, as they do in Missouri, but they can develop it in saccharine matter; they can develop it in various other matters; they can produce long ears or short ears, or ears large around, or most anything else they please, by a little selection.

Mr. COBB. I have no doubt whatever that that is a very promising line of experiment.

The CHAIRMAN. The same thing might be made with broom corn and cane.

Mr. COBB. I believe there we have done that. If broom corn was only grown to the extent that corn is, we would have taken broom corn right away.

The CHAIRMAN. I think the error under which you have been laboring, according to my point of view, is in assuming that you may utilize the cornstalks from the farmer's field which he raised to get the corn.

Mr. SIMS. In other words, to make the stocks a valuable by-product to make paper.

The CHAIRMAN. Yes. I do not think that is possible, and I say that simply from having been raised on a cornfield and having lived on a cornfield, and then having studied this paper subject as well as I could. Show us the results of your cornstalk experiments, Doctor.

Mr. COBB. I have already given you those figures. Then, as I said, we have examined the quality of the fiber produced, and we get an average on our present experiments of 1.25 millimeters in the fiber, and the quality of that fiber is, so far as we have been able to experiment with it, very fair.

The CHAIRMAN. What is the other table there?

Mr. COBB. That is the result of the chemists who are employed by Mr. Sherwood in analyzing a sample of his stock food which he submitted to us.

The CHAIRMAN. That is what he claims he can get out of the stalk?

Mr. COBB. That is the return that his chemists gave.

The CHAIRMAN. We would be glad to have that, too.

The table referred to is here printed in the record in full, as follows:

OAK PARK, ILL., June 22, 1908.

Mr. C. J. BRAND,
Agricultural Department, Washington, D. C.

DEAR MR. BRAND: I inclose herein a sample of food extract from cornstalks.

Extract contains:	Per cent.
Moisture.....	10.0
Ash.....	14.3
Insoluble matter.....	7.2
Protein.....	9.8
Sucrose.....	9.2
Glucose.....	9.2
Nonsugars.....	3.7
Mineral matter present (ash):	
Carbon dioxide.....	20.55
Chlorine.....	2.54
Sulphur trioxide.....	8.26
Phosphorus pentoxide.....	6.61
Potasia.....	22.42
Soda.....	25.47
Iron and alumina.....	Trace
Lime.....	4.13
Magnesia.....	4.11
Matter insoluble in water and acid.....	5.91

In practice it will be evaporated to about the consistency of molasses, then mixed with ground forage (absorbent), and should be sold to the trade on its food value.

Please note, particularly, that a new industry opens up on this food extract, to wit (after refining), for beer, for bread making, for table sirup, etc. I wish to call especial attention to this product. This sample is 2 years old.

Yours, very truly,

GEO. R. SHERWOOD.

The CHAIRMAN. In your cornstalk experiments what did you actually produce?

Mr. COBB. We produced this extract, first of all, then we produced a mixed pulp which was treated with the sieves, with the result of obtaining a separated pulp consisting of (1) the fiber and (2) the pith cells, and the samples of paper pulp which Mr. Sutermeister showed you were made from those two different qualities of pulp. Then we obtained results of measurements on the ingredients which composed those papers which I have just been giving you.

The CHAIRMAN. What do you call this by-product?

Mr. COBB. I suppose you would call it a stock food. Perhaps that is as good a term as you could use.

The CHAIRMAN. Well, using the term "stock food" with some reservation from me, how much of that did you get per ton, dry weight, of corn fodder?

Mr. COBB. About 300 pounds. I have not the figures on that. Mr. Sutermeister, I presume, gave you them, but he would give them from the original data, and it is about 300 pounds.

The CHAIRMAN. I thought you had the figures here. That is what he told us, 300 pounds. Then he said that they got about 850 pounds of pulpy matter.

Mr. COBB. Yes, sir; that is right.

The CHAIRMAN. Of which about 250 pounds was fiber.

Mr. COBB. Yes, sir; about one-third; that is right.

The CHAIRMAN. That is not one-third, and that is what I wanted to ask about, whether those figures were correct, if you had the figures here?

Mr. COBB. I would have the same figures he has—just the same. You see, he would be my source for those figures.

The CHAIRMAN. That corn fiber that you get—have you had that examined by any experts?

Mr. COBB. We have examined that in the Bureau of Plant Industry; yes, sir.

The CHAIRMAN. Have you had it examined by any experts in the paper-making business, I mean?

Mr. COBB. Well, I have examined paper a great many years.

The CHAIRMAN. The pith, when it comes out, you say, occupies a good deal more than its proportionate space?

Mr. COBB. In the pulp it does; yes.

The CHAIRMAN. When it is separated it shrinks very much?

Mr. COBB. Very much, indeed; yes.

The CHAIRMAN. Have you figured on what that stuff is good for?

Mr. COBB. I have, to this effect: There is no doubt it could be used as a substitute for those products that are used in making strawboard or boxes or cardboard of various kinds. The quality of it, however, to my mind, is rather superior to the ordinary strawboard.

The CHAIRMAN. What makes you think it could be used in place of strawboard?

Mr. COBB. From the qualities shown in those samples [exhibiting samples].

The CHAIRMAN. These are not the pure pith.

Mr. COBB. Well, this machine does not make a pure separation of pith and fiber. Of course, I presume if you did it times enough over you might make something like a pure separation.

The CHAIRMAN. Now, you say you think you can convert that into board?

Mr. COBB. There are lots of things that it can be made into; there is no question about it.

The CHAIRMAN. That is the question. Board has a very large amount of fiber in it.

Mr. COBB. Yes, it does, as it happens, but it is not necessary.

The CHAIRMAN. They tell us that it is; that is what the paper mills say; they may not know. This has practically no fiber in it and no tensile strength to it.

Mr. COBB. There is considerable strength to it.

The CHAIRMAN. Very little tensile strength to it.

Mr. COBB. There is just as much strength in it, Mr. Mann, as in any amount of stuff converted into cardboard boxes. You buy a suit of clothes, and you get it back in the boxes the stuff of which is not as good as that. I call your attention particularly to the effect of pressure on the stuff. This has not been bleached to the extent it might be, and there is a possibility of it replacing articles that are now made of celluloid. It has this property, which is rather striking, and I fancy there can be no doubt it is useful; for instance, you wet it and you can bend it, and it will hold the shape.

The CHAIRMAN. Part of this has been calendered. Where was that done?

Mr. COBB. By the Warrens, in the Cumberland mills, Maine.

The CHAIRMAN. You say these samples come from Warren's Cumberland mills?

Mr. COBB. Yes.

The CHAIRMAN. They were not samples which were produced from the experiment here at all?

Mr. COBB. No.

The CHAIRMAN. Have you any samples that were produced here?

Mr. COBB. Nothing except these hand-made samples at all.

Mr. SIMS. These are not paper.

Mr. COBB. No; they do not claim to be. We have no machine here. That is one fault which I found with the Forest Service outfit at the very beginning. I said, "You have gone just not far enough. You have put in a small pulp mill, but there you have stopped short; you should have put in a small paper mill to go with it."

The CHAIRMAN. Considering the fact that Warren, at the Cumberland mills, has been experimenting with this cornstalk proposition for many years at a very great expense, I do not quite see the theory of the experiments that are carried on here.

Mr. COBB. The theory was this—

The CHAIRMAN. You have learned something new, have you?

Mr. COBB. We have learned some things that are new. We have not claimed, so far, to have discovered anything original, but here was a process which it was claimed would do certain things. What were we to do, to assume that that was so?

The CHAIRMAN. I do not see why you needed to assume anything at all about it. Here was a large company carrying on an expensive experiment of its own, involving this same process, in order to determine the commercial possibilities of the use of the process, which they could determine. It was impossible for you to determine the commercial possibilities of it, and yet the experiment here has been

simply a reproduction of a small portion of the experiment that the Warrens have been carrying on for years.

Mr. COBB. That is not the way I look at it. I went to see one or two mills, and saw Mr. Warren and had a talk with him, and ascertained as much as he was willing to tell me—of course, I presume he knows things he did not tell me, but I confess I think he was very frank with me—and it was after the conversation with him and finding out what he knew that we concluded to take it up. In the first place, the only thing Mr. Warren has done, as I understand it, is to take samples that have been produced by Mr. Sherwood himself, or his employees in Chicago, and convert them into paper according to his and Mr. Sherwood's idea. Mr. Warren has been growing some corn this year. I understood from him that this was the first corn he had been growing with this object in view. Meanwhile they have been experimenting with other things and have expressed great interest in two things—this was with a view to a possible cooperation that I went to see him—the two things that he expresses the greatest interest in as having the greatest possibilities in connection with possible sources of paper were corn first and the salt marsh rush along our Atlantic coast second.

Mr. SIMS. You have made studies of other plants besides corn which you have not given us?

Mr. COBB. Yes.

The CHAIRMAN. Did you find that Warren had used any of this pith pulp?

Mr. COBB. These samples I showed you are his production.

The CHAIRMAN. I mean have they used any in the making of paper or any other product?

Mr. COBB. You mean as issuing from the mill?

The CHAIRMAN. Yes.

Mr. COBB. No; I do not understand they have made and sold any paper from corn. I do not know whether they would have a right to. I suppose Mr. Sherwood would claim that his process had been infringed, or something of that sort.

The CHAIRMAN. Here is a sample that purports to be a commercial sample.

Mr. COBB. Stock jobbers can claim all they like. We can not tell about those things. We had to find out for ourselves.

The CHAIRMAN. What I am trying to find out is what you did find out in regard to Warren. I did not get this from Sherwood.

Mr. COBB. I can only tell you what I understand in regard to Mr. Warren. I believe he has made papers on his small experiment mill from Sherwood's material.

The CHAIRMAN. He has a mill in which they make very valuable experiments all the time, doing a great deal of work. What other experiments have you conducted? Have you made any estimates at all as to the cost of handling the cornstalks?

Mr. COBB. I have gone into it several times and have had others go into it, and must say have come to a different conclusion from what you have. [Exhibiting map to committee.] Take in this area, the densest portion of the corn belt; that map shows the distribution of our corn. I believe, from the estimates I have made, that almost anywhere in that region a mill located at a good railway center and

not having any discrimination against it could pay in the neighborhood of \$5 a ton for stalks, and that where certain kinds of corn are grown, which are very largely grown, Mr. Hartley tells me, that the farmers could part with it at \$5 a ton, and would do so, if not all of them, a sufficient number, in a 75-mile radius, to run a small mill. Roughly, that is my present opinion, and you can see I have given you the data on which it is based. You see how incomplete it is. We have really only analyzed a single corn, and we had to start this under unfavorable conditions as to season of the year.

The CHAIRMAN. The mill, if you could locate it at all, would necessarily have to be a small mill in a district where they grow corn very extensively, and necessarily located close to a coal mine, I take it. You would have to be close to a coal mine, would you not?

Mr. COBB. You would have to have cheap power, of course.

The CHAIRMAN. You would have to have cheap coal, would you not? I am not talking about cheap power.

Mr. COBB. That is the source of power.

The CHAIRMAN. Oh, no; this is a soda process. There is no soda process, as I understand it—let us see what your understanding is—that can live long in paper-pulp making unless you can recover the soda?

Mr. COBB. Yes, that is true; you have to have heat.

The CHAIRMAN. And the recovery of the soda requires an enormous amount of fuel?

Mr. COBB. Yes. Of course, thus far we have not made any experiments such as have been rather crudely outlined and thrown into the future, simply because this seemed to be the thing to go at first. We may have made a mistake in taking this thing first, but we used our best judgment. There is a proposition of compressing the fibers together in such a way that they can be ground.

The CHAIRMAN. What do you mean by grinding?

Mr. COBB. Just as you grind wood. It is conceivable, of course, that by forcing stalks of some crop—I am not speaking of corn now, but anything of the kind—through an aperture or a compressor that can be worked at right angle to the axis of it, at the same time putting on periodically a pressure at the back, like the pressure that is put onto a log of wood, you could compress some of this matter so as to grind it. That is conceivable. I do not know that anybody has ever tried it.

The CHAIRMAN. I am not sure whether it is conceivable or not. You would have to press it with the stalk before cutting it up, of course.

Mr. COBB. If you will just take a stalk of maize, Mr. Mann, and a grindstone, and wind it with string to keep it from splitting, and press it against the grindstone, you will see that it can be ground off. Doing that under pressure, it would be all the more feasible, it seems to me.

The CHAIRMAN. This pithy matter would make too crackly a paper for news paper?

Mr. COBB. It is out of the question for anything to be printed on, of course. The only use I can see for that is something that would come in competition with strawboard, and possibly in certain ways with celluloid.

The CHAIRMAN. But there is not as much fiber in this pithy matter as there is in ground wood?

Mr. COBB. No.

The CHAIRMAN. And yet ground wood can not be used successfully by itself in the manufacture of board——

Mr. COBB. True enough.

The CHAIRMAN (continuing). Because there is not fiber enough in it. It might be used; I throw this out as a suggestion to you. They make what they call "undurated" pails and other household utensils out of ground wood, do they not?

Mr. COBB. Yes.

The CHAIRMAN. Whether they use any fiber in connection with it I do not know. If this molds easily, it might be possible to use this pithy pulp for that purpose.

Mr. COBB. If they could be combined, for instance, with some substance that is even more impervious to water, then you might make a great many articles out of it.

The CHAIRMAN. Mr. Sutermeister told us that he had experimented with this pith sheet and grease, and it was for some length of time practically impervious to grease. If it be impervious to grease, I take it that very likely water would not affect it very readily.

Mr. COBB. You can not call it waterproof, but water does not enter it readily; that is true. If you get the pith comparatively dry, to a stage so that you can mix it with some other substance, it is quite conceivable that you can make it into some material resembling what they call "xylonite," of which they make photographic trays and things of that kind.

The CHAIRMAN. Do you know whether this has any expansive power when it is wet?

Mr. COBB. Yes, it has; but it is not great.

The CHAIRMAN. I suppose you are familiar with the old proposition to collect corn pith and put it in between the plates on naval vessel, so that when a cannon ball should go through the side of the vessel that the pith would instantly expand under the water contact and fill up the hole?

Mr. COBB. Yes.

The CHAIRMAN. They had that worked out very perfectly at one time. How far it was practicable I do not know, but I suppose this could not be used for that purpose?

Mr. COBB. No. You see, once those cells are dissociated they can not be put together. There is no question about the expansive power of unaltered pith. If you compress it and then wet it it comes back.

Mr. SIMS. That is, as pith?

Mr. COBB. Yes. The cells are not yet dissociated, but this is a different thing. Every cell is taken from every other, and it is, as a matter of fact, collapsed. No, that would not have that pronounced expansive property.

As to the other plants that have been taken up, it seemed first of all the best thing to ascertain as nearly as possible how much of them there is. That idea we came to after trying to find out from various people how much of a given plant there is. The estimates were so various that it was pretty evident that it would require a great deal of care to get statistics that would be reliable, and we are gradu-

ally accumulating evidence from all the sources we can think of as to the distribution of plants that I mentioned earlier; that is, this wild salt marsh rush, so-called, and saw grass, and canebrake, and so on. It might interest you to see this map of the canebrakes which was prepared by Doctor Merriam's bureau. He had charge of the Biological Survey, and while they do not attempt to estimate the acreage of canebrakes, they say that that yellow coloration there gives an idea.

The CHAIRMAN. In other words, it is common all over the South, east of the Mississippi River?

Mr. COBB. Yes.

The CHAIRMAN. Even west of the Mississippi River?

Mr. COBB. Yes.

The CHAIRMAN. In the bayous and low ground?

Mr. COBB. Yes; there is no question about that being convertible into paper. I have samples of the paper here, and, as I said before, prominent technologists in India, of world-wide reputation, have come to the conclusion that paper can be made from bamboo.

The CHAIRMAN. Is it not a fact that these canebrakes are very expensive to get at? You can not get it out without boats, and in many places you can not use boats.

Mr. COBB. What naturally would be expected would be that a mill should be located there. It is not to be supposed that that stuff is to be carted up north and made into paper. That is out of the question. The mill would have to be located where the material is. The mill would naturally have to be located on the river bank, and this stuff would have to be brought in boats down the rivers or the water courses; and looked at in that light, it is in some places accessible matter.

The CHAIRMAN. Have you taken into consideration the fact that a pulp mill or a sulphite mill is a rather expensive proposition, or a soda mill?

Mr. COBB. It is something that requires several hundred thousand dollars to start a decent plant; there is no question about that.

The CHAIRMAN. You would have to have enough territory with material tributary to the mill to last for a number of years?

Mr. COBB. Yes; that is taken into consideration in the case of every one of these wild crops. We have taken those of which there was not only a quantity, but which we knew would reproduce if cut. The cane is one of those. That paper is made by Mr. Little, of Boston, who has also a technological laboratory. That paper is made of cane from the canebrakes. His opinion is there, and it coincides entirely with that of these Indian experts.

Here is a report of the manufacture of paper from the salt marsh rush. These analyses were made at a well-known English laboratory from material sent by my colleague, Mr. Dewey. We sent over several hundred weight of this rush. It is the kind of "grass" you go out and shoot ducks in on the coast. The reports are favorable on that for certain purposes, especially as a fiber that might be mixed with ground wood, for instance, in making news paper. I will say in this connection that that stuff had been previously tried, and I think this shows to some extent the advisability of going at this matter in the way we have. That "grass" or rush, rather, has been tried by a mill in South Carolina, and they reported to us with regard to their

trial. They said they could get any amount of this stuff at \$3 a ton, but that when they tried to convert it into paper it gave a pulp that was too mushy. Note that word "mushy." That is exactly the effect these pith cells have on pulp. Any paper maker would say, if you took that unscreened pulp from cornstalks, "Too mushy." For that reason I was very desirous, as soon as this process for separating out proved successful on corn, to see whether it would prove successful on rush, and in consequence we had it tried on tule grass, and the process was equally successful.

The CHAIRMAN. The tule grass is about the same as the cat-tail?

Mr. COBB. No; it is not. Mr. Mann, it is more like this salt-marsh rush, really. It does not have a wide blade like the cat-tail; it is narrower and roundish. If you have ever seen any of the bottled beer that comes from the Pacific coast, the bottles are always done up in tule grass. It grows in great quantities on the Pacific coast rivers and is distributed all through the east and north in swamps. I think that a line of experiment, either public or private, should be kept up in connection with this separation. I do not believe that this process we have tried is the only way. I think it is extremely likely that some modification of this or some other process can be obtained by which the pith cells can be separated very cheaply. This is the first time it has been done by a separate machine. You can make a sort of a separation with a machine that is used in the usual paper factories.

The CHAIRMAN. This report is the report as to the salt-marsh grass.

Mr. COBB. I think that has already been made public. There would be no objection to using that. I would be glad to send you a copy of it.

The CHAIRMAN. This is an official report.

Mr. COBB. The form of it shows it is made to be published.

The CHAIRMAN. It is an official report. Whether it has been published or not would not make any difference to us.

Mr. COBB. We did not pay for that, you know. In fact we have made this money go about as far as we could, I think.

The CHAIRMAN. This sort of an experiment is a very reasonable and proper use of the money, though I do not quite understand why you have to send it abroad.

Mr. COBB. Naturally we would have turned that over to the Forest Service laboratory.

The CHAIRMAN. That would have been a great mistake, if you had.

Mr. COBB. But we took it up before we made the arrangement with the Forest Service at all.

The CHAIRMAN. If you can send samples of different plants to paper mills which have laboratories for them to experiment with and report to you, why is not that the most satisfactory way of doing it?

Mr. COBB. It is, provided they have the proper facilities; but I find that, while they have the very best facilities for ascertaining the cost commercially of the different articles which they habitually use, outside of that range their fund of information is very small.

The CHAIRMAN. There are only a few that would have them, probably.

Mr. COBB. Very few indeed, I assure you. Experimental work is a very expensive thing. No matter how you try to save, if you get at

results you have to spend money, and these people are simply making money, and they do not divert very much of it to experiment work. You can not blame them. Perhaps when they started they did experiment, but once having started their mill they do not expend large sums of money in experiments, and none of them maintain experts of a very wide character of training. They are mostly men who have been brought up in the paper industry. It surprised me to find that very few of them employed graduates of our institutes of technology.

The CHAIRMAN. I think you will find that one of the results of this investigation will be that several of the pulp and paper mills will hereafter have a good laboratory with a first-class chemist at the head of it.

Mr. COBB. That will be a very good result.

Mr. Cobb here presented the following documents to be printed in the record:

ANALYTICAL AND TECHNICAL LABORATORIES,
Aynsome, Grange-Over-Sands, Lancashire, November 19, 1908.

Mr. LYSTER H. DEWEY,
*Bureau of Plant Industry,
United States Department of Agriculture, Washington, D. C.*

DEAR SIR: I have much pleasure in sending you with this letter my report on the salt marsh rush, samples of which you sent me some little time ago, and under separate cover I am sending you five samples of paper made from this grass. I regret very much that I have been so long in sending this forward, but I have had so very much to do in other directions that I have not been able to devote the necessary time to it.

The other smple, namely, fresh-water cord grass, I hope to have ready in December, and will then send you my report, together with specimens of paper.

If you at any time come across any other fibers which might be of use for paper-making purposes, I shall be glad if you will be kind enough to forward me samples for investigation. I wish very much to experiment with pineapple fiber (*Ananassa satiba*) and also with wild pineapple fiber (*Bromelia sylvestris*). Do you consider these to be of any use?

Should your department at any time require any investigations undertaken in connection with fibers, other than from a paper-making point of view, I shall be pleased to hear from you and cooperate with you.

Trusting that the report I am sending you will be of interest, I am, dear sir,

Yours, faithfully,

J. STEWART REMINGTON.

AMERICAN SALT MARSH RUSH (*JUNCUS ROEMERIAMUS*).

[By J. Stewart Remington, Douglas Dowack, and Bedford Dixon.]

This grass belongs to the natural order Cyperaceae. It is known in different localities under various names, such as "Fox grass," "White rush," "Marsh grass," "Salt grass," "Sea-salt grass," "Salt marsh grass," and "Rush marsh grass." It is a reed-like grass, from 1 to 4 feet in height, with 2 or 4 slender, erect, widely springing spikes. It is a common grass on salt marshes, ranging from the State of Maine southwards to Florida and along the Gulf Coast to Texas. It is also found growing in large quantities at many points along the coast from Massachusetts to Florida.

A sample of this grass was forwarded for investigation to the Aynsome Technical Laboratories by the director of the Fiber Division of the United States Department of Agriculture some few months ago.

In the following account of the work which has been done in connection with this grass will be found the results of the various trials made and methods employed in the production of paper from the pulp obtained.

The sample consisted of about one hundredweight of a stiff, dark-brown colored grass, closely resembling the rushes that thrive in the marshy districts of this country, being smooth, cylindrical in shape, varying in diameter from one-eighth to one-sixteenth inch, and having an average length of about 3 feet.

The chemical examination of the fiber gave the following results, the percentages, except that of moisture, being expressed on the dry fiber:

Analysis.

	Per cent.
Moisture.....	11.90
Ash.....	3.17
Loss on α hydrolysis.....	20.77
Loss on β hydrolysis.....	41.88
Loss on mercerization.....	19.52
Gain on nitration.....	21.34
Cellulose.....	36.16

Length of ultimate fiber, 2 millimeters.

The fibers, on casual inspection, appear to consist of a mixture partly resembling the tracheids of wood, while in other respects they may be likened to jute fibers and also esparto. They are short and narrow, smooth, cylindrical, and gradually tapering to blunt points, often occurring in the form of small bundles. The central canal is narrow. The chief characteristic, however, is the appearance of a number of groups of curiously pitted cells, which remain unchanged throughout the preliminary treatment and are to be found as small specks in the finished product.

It will be readily seen from the above results and observations that the grass is capable of producing a good fiber and at the same time a reasonable yield of pulp.

A large number of practical experiments were carried out in connection with the boiling of the grass, which may be summed up in the following résumé:

Boiling.—Several preliminary trials were made, in order to arrive at the best and most economical means of obtaining a good pulp. Owing to the great action exerted upon the material by alkali, as demonstrated by the loss of weight sustained in the process of hydrolysis and mercerization (see chemical figures), it was decided to employ caustic soda in the treatment of the fiber for the isolation of the cellulose, in order to take advantage of allowing by simple means the recovery of the alkali, which would result in a reduction of the original cost for soda caustic. Moreover, it was found that caustic lime tended to produce a hardening effect upon this kind of fiber.

The natural grass was cut into small lengths of about 2 inches and then soaked in water for about one day before being put into the digester. The boiling process in each case was performed in a stationary digester, with a readily adjustable heat supply, giving the operator complete control over the conditions of boiling.

The first charge was treated with soda liquor of a strength equivalent to 4 per cent caustic soda for a period of six hours, at a steady pressure of 4 atmospheres and a temperature of 140° C. This experiment was conducted with the special object of arriving at good minimum working conditions. On the completion of the boil, the whole of the contents were thrown out into a large sieve. On draining and washing, it was found to be underboiled, all the soda having been consumed without completely resolving the cellulose constituents.

The above operations were repeated on a larger scale, the proportion of soda being increased to 8 per cent. On this occasion the grass was allowed to boil for eight hours at a reduced pressure of 3 atmospheres. The product, on examination after a preliminary washing, was found to be much cleaner, but still slightly underboiled. The liquor contained no free alkali, and after one or two further determinations, with increased quantities of soda, the most satisfactory conditions, with regard to both quality and yield of pulp, were obtained by using the materials in the following proportions:

Caustic soda, 12 per cent.
Time of boiling, ten hours.
Pressure, 4 atmospheres. $\frac{1}{2}$

The resulting product obtained by this method was broken up, cleaned, and washed, 37 per cent of raw unbleached fiber being produced.

Bleaching.—A number of experimental bleachings were carried out on the pulp in the rough state. This was found to be rather dark, and some difficulty was at first experienced in obtaining a product of good color. The most satisfactory results were obtained by the use of 10 to 11 per cent of bleaching powder, for about two hours, continual treatment in the beater, and subsequently allowing it to remain for a considerable time before washing.

The bleaching was assisted by the addition of acid liquor calculated so that the liberation of hypochlorous acid should be unaccompanied by the evolution of any free chlorine. It was found that the pulp was quickly acted upon by the bleaching agent up to a certain point, but all efforts to develop much improvement after this stage was reached were unsuccessful, except by washing out the products of the

bleaching action and treating further with a weak alkaline solution, rewashing, and finally repeating the bleaching process. It may be here mentioned that some considerable care is necessary in carrying out the bleaching operations in a satisfactory manner, as this pulp contains a fair amount of lignified fiber and is consequently readily liable to form yellow chlorination derivatives of the less resistant cellulose to hydrolytic treatment. This difficulty was overcome by maintaining a basic reaction throughout. Attempts were made to bleach with sulphurous acid in various conditions, but the calcium hypochlorite was found to be the most efficient.

Some interesting experiments were made by bleaching this pulp in the sun, excellent results being obtained, seemingly somewhat better than those arrived at under favorable conditions in the beater. The amount of manipulation required, however, would not admit of the employment of this method on a large scale.

Sizing, loading, etc.—Sufficient of the bleached pulp having been obtained in a pure state, by means of washing until free from dirt and other matter, some of the auxiliary preparations, such as the use of an "antichlor," were dispensed with. In certain cases where the pulp was sized the engine-sizing process was generally adopted. When the pulp was nearly ready for running, the rosin size, in the proportion of from 3 to 5 per cent, was added to the mixture of pulp and filling, shortly after the latter was incorporated, and the complete reaction brought about by the addition of the requisite amount of alum to the contents of the beater. At this stage of operations some delay was experienced in dealing with a rather unusual amount of frothing that was produced in the beater, which was finally removed on the addition of a small quantity of paraffin.

During the determination of rosin in the finished paper, it was noticed that there had also been extracted a quantity of foreign matter, other than rosin, of an oily nature, which, on further investigation, was found to have been derived from the original pulp. The presence of this matter appears to have a beneficial effect upon paper prepared from the unsized pulp.

Manufacture of paper on model mill.—In the following scheme of procedure several specimens of good paper were made, both with the marsh-grass fiber alone and also in conjunction with certain other pulps.

It is not proposed to enter on a detailed description of the methods of working and running on the paper machine, as all the papers prepared were furnished under similar conditions, and but for a little variation in their respective felting properties, which was regulated from time to time by a suitable adjustment of the couch roll, gave most satisfactory results.

After leaving the press roll the paper was passed over a series of nine drying cylinders, and finally through two rollers.

When used without mixture with other fibers, the salt-marsh pulp yields a close sheet of paper, suitable for good wrapper or casing purposes, and makes a smooth and glossy surface under the calender. It is capable of carrying a considerable amount of loading, and when sized will stand a severe test.

A specially good and uniform paper was produced from a mixture of this fiber with mechanical wood and sulphite pulp, 50 per cent of the former being included. This paper, when suitably loaded, would prove very suitable for an average writing, printing, or art paper, possessing an excellent texture, and having superior "feel" and "handle" properties. Unfortunately, no means was discovered of preparing the half-stuff in such a manner as to avoid the production of paper having speckles on the surface, unless subjected to a very severe treatment, which would be detrimental to its value as a finished article. This fault is caused by the presence of a large number of groups of cells in the fiber, which has been previously referred to, and, but for this fact, a high-class writing material could easily be manufactured.

In the following table will be found an account of the chemical and physical characteristics of the principal samples of paper prepared:

Furnish and composition of paper.	Chemical constituents.			Physical properties.			
	Molsture.	Ash.	Rosin.	Breaking strain in pounds.	Stretch.	Folding test.	Thickness in inches.
Salt-marsh grass pulp:	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>		<i>Per cent.</i>		
Unbleached, unsized.....	11.45	2.44	Nil.	23.95	2.34	674	17½
Bleached, unsized.....	11.16	2.79	Nil.	19.14	1.25	547	17½
Bleached, sized, loaded....	10.45	5.42	5.04	17.37	1.97	540	17½
Salt marsh, 50 per cent; sulphite pulp, 25 per cent; mechanical wood, 25 per cent; bleached, sized.....	9.60	1.80	1.70	16.25	1.44	837	16½
Salt marsh, 50 per cent; sulphite pulp, 50 per cent; bleached, sized.....	8.00	2.71	1.98	13.54	1.16	925	17½

It may be pointed out that the resistance to strain and stretch was determined only on the "way of machine" of these papers, and is not an absolute measure of strength, but useful for the purpose of comparison. Allowance must also be made in each case for the variation in degree of thickness.

Aynsme, Grange-over-Sands, November, 1908.

Mr. COBB. This is a small map which is the result of a great deal of correspondence. It shows the range of the saw grass. That grows in the Everglades of Florida. We have not gone very far with that, because we have not seen how that stuff could be got at. You will remember that there was a railway pushed through down there; you probably saw an account of a "dry-land boat." They had to engineer through the Everglades, and in order to do it they constructed a special machine that enabled them to go in. I have started some correspondence to see what there is in it, but beyond that we have not done much. With regard to cotton stalks, I would report that we have them in Washington; and we have this point, which, so far as I know, is a novelty, but I would not be at all surprised if somebody else had hit upon the same idea: Noticing that cotton stalks standing in the field in the winter sometimes lose their outer white bark, it occurred to me if they lose that so easily, then by moistening them and agitating them mechanically that might be so removed. One of the greatest obstacles in making paper from cotton stalks hitherto has been in bleaching. If you will notice on these samples, there are specks all through the cotton-stalk paper. It is very difficult to bleach that stuff. That results from the presence in the pulp of bark that has not been removed or bleached. We have, in the Division of Agricultural Technology, of which I have charge, a man who is devoting his time to cotton, Professor Bennett, who has charge of some of our cotton work, and I asked him to make observations on this line I have just indicated. I noticed myself the fact that the bark would come loose, and I asked him to try different varieties of cotton, by soaking them and agitating them, and observe whether this bark could be removed mechanically, and he reported to me very recently, just a week ago, that he has tried it, with some success. Some lots of cotton stalks have just come to our laboratory, and my suggestion is, of course, that they take a small agitator, a laundry washing machine, or something of that sort, that will not cost much, and exploit that point a little more thoroughly. Where water power was available, or perhaps even where it was not, it would be possible to get rid of the outer bark by a mechanical agitation, which might be a very important step toward the utilization of cotton stalks for paper.

Mr. SIMS. Have you a paper to submit on the cotton-stalk proposition like the one you submitted on the marsh grass?

Mr. COBB. No; we have not.

The CHAIRMAN. Do you regard the manufacture of paper from cotton stalks now as a commercial possibility?

Mr. COBB. The matter of collecting and handling the cotton stalks would be even graver than that connected with corn.

The CHAIRMAN. And there is no possible stock food?

Mr. COBB. No.

The CHAIRMAN. On the other hand, you get a very much larger percentage of fiber per ton?

Mr. COBB. I think there is a larger percentage of fiber.

The CHAIRMAN. Do you remember the quantity of fiber per ton?

Mr. COBB. No; I do not.

The CHAIRMAN. There is no pith, of course?

Mr. COBB. Oh, yes; there will be pithy matter, but the amount of fibrous matter is greater than it is in corn, I think.

The CHAIRMAN. I thought there was no pith in the cotton stalk?

Mr. COBB. Oh, yes.

Mr. SIMS. There is seemingly a heart in cotton?

Mr. COBB. There is no nonwoody plant that has no pith.

The CHAIRMAN. I think Mr. Sutermeister testified to us that they got no pith in the cotton stalk.

Mr. COBB. There is pithy matter in the cotton stalks.

The CHAIRMAN. Do you get anything which you have separated from the fiber, or do you remember?

Mr. COBB. No; we have not yet. The cotton stalks only arrived here day before yesterday for our experiments.

The CHAIRMAN. Where did all these samples come from, then—these cotton-stalk samples?

Mr. COBB. Those are some that were previously made by Mr. Sutermeister or his predecessor at the laboratory there.

The CHAIRMAN. Where?

Mr. COBB. Before this was instigated at all, before you secured the passage of this item in the appropriation bill.

The CHAIRMAN. We understood Mr. Sutermeister to inform us that under that appropriation he had been carrying on experiments with cornstalks and cotton stalks, tule and rice straw.

Mr. COBB. That is true.

The CHAIRMAN. It is true in a sense.

Mr. COBB. The experiments with cotton have come to this stage, that we have just got the cotton stalks here.

The CHAIRMAN. You have not carried on the experiments with cotton, then?

Mr. COBB. We have had some very important observations made on the field.

The CHAIRMAN. Doubtless Mr. Sutermeister was having reference to the experiments which he had previously carried on.

Mr. COBB. I presume so; I think that would be true. If you have the other impression, I think probably that is incorrect. I think he must have meant to refer to experiments here which he made before this appropriation was obtained.

Mr. COBB. Pith is not a good term to use, and really that is the objection always to a common term; it generally has a variety of meanings, while a technical term has only one meaning. This sample of rubber twig illustrates [exhibiting] the difference in the two portions of the plant. That inner portion [exhibiting] is all pith; there is no fiber in it at all.

I was going to explain how Mr. Sutermeister might have stated that there was no pith in the cotton stalk.

The CHAIRMAN. We did not ask him if there was any pith in cotton stalk, but whether he got any pithy pulp.

Mr. COBB. He did not have the machine to separate it.

The CHAIRMAN. As a matter of fact, then, in your opinion, when you do make the experiments with the cotton stalks now, you will have to separate the pithy pulp from the cotton stalks?

Mr. COBB. Certainly.

I do not know whether you have seen a map of the distribution of the paper mills [exhibiting chart].

The CHAIRMAN. I have had it in mind.

Have you given any attention in your investigations to the subject of so-called "Kraft" paper and its manufacture in the United States?

Mr. COBB. No; we have not.

The CHAIRMAN. You know what the Kraft paper is? It is a very light weight, extremely strong wrapping paper.

Mr. COBB. Yes, sir; I know.

The CHAIRMAN. It is now being imported into our country in considerable quantities, and the weight is not over one-half the weight of ordinary wrapping paper, and in some cases not so much as that. I was told by a gentleman who ought to know that that paper was made from resinous pines in northern Europe, and if so, and we could utilize the waste or a by-product of the resinous pines of the South for the manufacture of the supply, it might be very desirable.

Mr. COBB. I will look into that.

The CHAIRMAN. That is made, I think, by the so-called sulphate process, which can not be used where there is very much population.

Mr. COBB. The process is very deleterious to health.

The CHAIRMAN. I do not know that it is not unhealthy, but there is a very bad odor. They say it is like a rotten-egg factory. I do not know.

Then, in the course of your experiments, I wish you would consider the proposition of trying other woods for ground wood besides spruce, and possibly ascertain from some of the mills how far they have experimented with it, what success they have had, and what difficulties they have met with, with the possible view of obviating the difficulties in grinding other kinds of timber besides spruce. The present process of grinding wood, while exceedingly cheap, is also exceedingly crude. It might be that it would be possible to grind other woods than spruce, and possibly some wood that would reproduce very rapidly. They make to-day soda fiber out of cottonwood. The soda-fiber process is too expensive to make news print paper from. Cottonwood grows very rapidly in many places, willow grows very rapidly in many places, and probably other trees grow rapidly and reproduce rapidly. If it were possible to reduce that class of wood to ground wood it seems to me it would be a very valuable acquisition. I do not understand why it is not possible. With your knowledge of the form of the cellular matter, you might be able to make discoveries in reference to that.

Mr. COBB. I will certainly call the attention of the forestry people to that question. It is one that would naturally fall to them rather than to the Bureau of Plant Industry. I see what you mean and I will not lose sight of it.

The CHAIRMAN. Some time ago the newspapers quite generally printed dispatches and articles purporting to be statements about the results of these experiments as to cornstalks, etc., stating that they could make paper out of cornstalks for about \$15 or \$20 a ton. What have you to say about that?

Mr. COBB. I remember the articles and remember the scores and scores of letters of inquiry that came in to us on that subject. The reply that we made to all those letters was that the statements were

premature and exaggerated. They did not originate from my office and I did not know where they did originate. They were certainly very wild statements.

The CHAIRMAN. So far as your experiments have proceeded to date on the cornstalks they show, as I understand it, first, that you get a by-product which you refer to as a stock food of problematic value—no one knows what it is worth; second, you get another by-product called "pithy pulp," or whatever it may be named, of problematic value—no one knows what it can be used for; and third, you get a fiber to the amount of about 250 pounds per ton, which would be 8 tons of cornstalk to a ton of fiber. Is that correct?

Mr. COBB. That is approximately correct. I would use a little more favorable—

The CHAIRMAN (interrupting). Optimistic.

Mr. COBB (continuing). Term in regard to the two by-products. I do not say that anybody knows what their value is, but I would say that they undoubtedly have some value.

The CHAIRMAN. I say problematical; no one knows. You have ascertained nothing?

Mr. COBB. No, sir; we have not yet anything sufficiently definite. We have only recently, this week or last week, received the Bureau of Chemistry's analysis of the stuff.

The CHAIRMAN. Wherever these statements emanated from, they were based upon a knowledge of having a ton of fiber to 8 tons of cornstalks and two additional products, which may be of some value, but the actual use of which no one can yet determine?

Mr. COBB. Yes, sir. The first one of the statements that I think you refer to appeared in the New York Sun, or that is the first one that my attention was called to. I think they were very speculative and I do not think they were taken seriously.

The CHAIRMAN. Do you know, as a matter of fact, whether those statements were based upon any memorandum or information given out to the press by the Bureau of Plant Industry?

Mr. COBB. I know that they did not originate from any memorandum or statement issued from the Bureau of Plant Industry.

The CHAIRMAN. Do you know whether the Forestry Bureau gave out any such statement?

Mr. COBB. No, sir; I do not know anything positively about it.

The CHAIRMAN. Have you never seen one of the statements?

Mr. COBB. No, sir.

The CHAIRMAN. I would like to direct your attention to this thought, too. You have assumed that the economical thing to do was to make use of the waste in some of the annual crops which we now raise in order to make paper. The Bureau of Plant Industry ought to be able, if anybody can, through its knowledge of plants throughout the world, to possibly find some different kinds of annual or perennial plants which can be planted here for the purpose directly of making paper.

Mr. COBB. We have had that in mind, of course, and some things are going on that I presume you know of. We are making, through the plant introduction bureau, in charge of Mr. Fairchild, efforts to introduce bamboo and other plants and the experiments seem promising in that respect.

Mr. SIMS. Bamboo does grow very rapidly?

Mr. COBB. And it grows again after cutting.

The CHAIRMAN. I went through the greenhouses yesterday looking at the bamboo.

Mr. COBB. Naturally, that would be cultivated to a considerable extent along the waterways. We have one plant that now grows an immense tonnage, and that is hemp. It is worth while, in my opinion, to consider whether that plant might not be modified as you have suggested.

The CHAIRMAN. And also the sunflower.

Mr. COBB. The sunflower gives an immense amount of pith and a small amount of fiber and requires a great deal more amelioration. It is more like this rubber twig that I showed you.

The CHAIRMAN. It has a much harder stalk than the corn?

Mr. COBB. It is very hard on the outside. It is like the rubber stalk that I showed you.

The CHAIRMAN. I am inclined to think myself that the chase after a by-product with which to make paper will not be successful. While they use in paper making now the by-products of the sawmills to a certain degree, slabs, edgings, and tops, and all that, yet the great bulk of the paper is not made in such a way as that, so far as wood paper is concerned.

Mr. COBB. Of course the cost of going through with the motions of planting and harvesting, especially for a paper product, is going to make it exceedingly difficult to find a plant that you can sell in the end at a sufficiently low price per ton to make paper, and that cost is not going to decrease except as we can improve the machinery. There is no evidence that labor is going to become cheaper, or materials. If we can invent more ingenious machines, then, of course, there may be that possibility.

The CHAIRMAN. The machines in the pulp paper mills generally, while there has apparently been some progress, yet to a large extent, I think, the machines are very much the same as they have been for years.

Mr. COBB. Yes, sir; that is quite true.

The CHAIRMAN. Whether that is because those machines were perfected years ago or whether it is because there has been very little attention given to efforts to improve them, I will not undertake to say. I am inclined to think the latter. The present method of mixing the pulp in the beating machine, I think, is as crude a thing as I have ever seen in a first-class mill of any kind, and yet it is all done alike in all the mills, apparently, with a little difference in capacity and some little difference in machinery.

What did you get out of your experiments with the tule grass?

Mr. COBB. We got a fiber. The proportion of pith is very much greater than it is in maize. The reason I had the tule grass tried was that I knew that it varied about as much from maize as we could expect to find any plant, and my idea was to see whether this process would also act where the proportion was different and the size of the fiber was different, not that we had any idea that it was a probable source of paper in any quantity.

The CHAIRMAN. What is rice straw used for now?

Mr. COBB. For strawboard and certain qualities of wrapping paper. A little point came up in connection with that which is very interesting. Mr. Baker, of Hollingsworth & Vose Company, of Boston, was

talking with me on the subject of fiber for paper, and he showed me some fiber and wanted to know what it was. I said that it looked to me like rice straw, and he said that he did not think that could be. At any rate, I said that I would submit it to Mr. Dewey, who is with me in the Division of Agricultural Technology, to see what it was. Mr. Dewey said that it was rice straw. Before he knew what it was Mr. Baker was loath to believe that it was rice straw. He said that he had been trying rice straw for a long time, off and on, and he could not use this for his paper. He makes certain grades of wrapping paper. The point is that this was a different variety of rice. That seemed to me to point strongly in the direction that you can not assume that rice is rice or corn is corn in this paper business; the different varieties vary very much, and there, I think, your idea of getting corn that has more fiber probably is a very good idea.

The CHAIRMAN. What do you know about the use of flax straw?

Mr. COBB. I know comparatively little about it from personal experience.

The CHAIRMAN. They make some very hard paper of some sort from flax straw?

Mr. COBB. Yes, sir; there is no question about the quality of the paper. They produce a linen paper, more in the nature of writing paper and bond paper, rather than printing paper.

The CHAIRMAN. Do they not use it for insulating paper, or something of that sort, in some places?

Mr. COBB. I don't know much about that.

The CHAIRMAN. What kind of straw do they use ordinarily for the strawboard?

Mr. COBB. Almost any of the cereal straws.

The CHAIRMAN. I know; but what do they use?

Mr. COBB. I think they use principally wheat straw. I do not think there is much choice among the various cereals. I think undoubtedly that rye straw has a strong fiber, but it also has a lot of mineral matter.

The CHAIRMAN. What straws are made into pulp by the soda process?

Mr. COBB. I think soda is the only thing that will reduce the straws where they contain a great deal of mineral matter.

The CHAIRMAN. Is that why the sulphite process will not reach corn, for instance?

Mr. COBB. I do not know that it will not.

The CHAIRMAN. Is the sulphite process used for any of these annual plants?

Mr. COBB. No, sir. I think it is up to us to make some experiments with the sulphite process on these plants being newly tried, but we have not gotten around to that yet. Of course, the action of the sulphite process is different from the soda process, but the fact that it will dissolve a certain substance in connection with wood leads to the conclusion that it may act also in connection with certain other plants, although it has not been tried.

The CHAIRMAN. What is the difference between the methods of this operation—between the sulphite and soda processes—the chemical difference?

Mr. COBB. In one case you use an acid and in the other case an alkaline solvent. The alkali is of course more vigorous. The acid

solvent can be used to the best advantage with those plants whose elements separate easily. Plants vary a great deal in the way that their cells are cemented together. The contact is very intimate, and when every cell is hexagonal in cross section there is full contact with all the adjacent cells [exhibiting]. In one case they might all touch each other and in another case the tissue may be loose.

The CHAIRMAN. With loose tissues you use the sulphite process?

Mr. COBB. It would be better with that sort of plant. The alkaline process is more positive and acts on the cement that holds the cells together.

The CHAIRMAN. I would have supposed that the wood-fiber cells might be more compact than they were in herbaceous plants?

Mr. COBB. They have thicker cells and yet they have this peculiarity, that they are perforated at frequent intervals. It is not so very easy to explain that, but if you could see it under the microscope it is very apparent.

The CHAIRMAN. The sulphite process is used with spruce and hemlock. There is hardly any other wood that is reduced by the sulphite process. They use the soda fiber process for the hard wood. They tell me that the liquid soda or alkali follows up along the length of the fiber, and if the chips are too long—they may not be too large around—but if too long the effect is not obtained.

Mr. COBB. That is right.

The CHAIRMAN. Instead of going in at the side and leading out the fiber from the side, it goes in at the end of the fiber cells and follows up along in between the fiber, especially as to sulphite, and I think as to the soda fiber they cut the chips a little shorter than for the sulphite. I do not quite understand just why the acid should act on one kind of wood and the alkali be required to act upon the other. I can understand why both might act upon any kind of wood.

Mr. COBB. There are two reasons. One is the difference in the structure of the different woods and the other is the chemical composition of the wood. While we speak in general of this substance as cement, it is not always the same; it varies in different plants, just as you have one building put together with mortar and another with cement. A similar cohesion is actually the case. With plants the cement substance between the cells in some cases is more soluble than it is in others, and it may be more soluble to one chemical and not more soluble to another. The two substances that we use are strongly opposed, one is acid and the other is alkaline, and it does not follow because the cement between the cells is more responsive to one that it is also more responsive to the other, and, as I say, the chemical composition of the cement has something to do with it. Then as to the openings of the tissue, of course the quicker and more freely the solvent can get at the tissue the better it can act. It is a fact that woods acted on by the sulphite are open in their tissues; that is to say, the cells, while they are intimate in their contact, are perforated in such a way that the solvent can get at the cement substance readily. Those are two of the main elements, the only ones I think of now, in fact, that would make the difference you mentioned.

The CHAIRMAN. The soda process is used generally with the hard woods, so called, and I take it from that the cellular tissue in those woods is more compact probably than it is in the spruce or hemlock, or so-called soft woods?

Mr. COBB. It is certainly different in character; there is no question about that.

The CHAIRMAN. That is easy to see, and the terms "hard" and "soft" woods would help to carry it out. That would seem to indicate that the cellular tissue in these annual plants reduced by the soda process is likely to be much more like the hard-wood cellular tissue than like the soft-wood cellular tissue. Perhaps that is the case with the rice straw, where the outer covering is extremely hard and close.

Mr. COBB. It is pretty difficult to reason from one set of plants to another.

The CHAIRMAN. I am not trying to reason from one set to another. I am trying to find out why you use the soda fiber on these annual plants and the hard woods, and sulphite on the soft woods.

Mr. COBB. I understand. I am not arguing that the sulphite process can not be used on any annual plant; I am only saying that I think it should be tried—that it is up to us to try it.

Mr. SIMS. The acid process is cheaper?

Mr. COBB. Yes, sir; it is cheaper.

The CHAIRMAN. Have you any more information to give us?

Mr. COBB. I have gone over most of the ground that I think I had thought of covering.

The CHAIRMAN. Do you think it is worth while to continue these experiments?

Mr. COBB. I think so. I have no hesitation in saying that. I can not at the present time see any place that I can point to a definite process that would be commercially valuable. I believe that the whole thing presents itself in such a light that experiments are not only desirable but imperative. No matter what is done, I can not see that the price of the present raw material of the bulk of paper that is printed on is going to decrease very much.

The CHAIRMAN. Would it be practicable for you in the Bureau of Plant Industry to make experiments with plants and turn a sufficient quantity of plant material over to a mill to make real experiments, if you could find mills which would accept?

Mr. COBB. That is what we are trying to do at this moment. All the work we have done appears to me as merely a preliminary going over of the ground to make sure of what we ought to do. For that reason I have been very chary about giving out information to the press or anybody else about it. We have not really ascertained results; nothing more than guides for what we should do, and the greater part of that appropriation still has to be used.

(Thereupon the committee adjourned.)

SHAWANO, WIS., January 8, 1909.

Mr. JAS. R. MANN,

Chairman Select Committee on

Pulp and Paper Investigation, Washington, D. C.

DEAR SIR: We are in receipt of your esteemed favor of the 6th and note that you have received our corrected schedules for pulp and paper investigation.

Relative to the several cross sections or samples of wood which were taken from our ground-wood mill, would state that while we

do not want to dispute the opinion of the Forestry Bureau, however, the samples which you mention as tamarack were samples of wood we term "swamp spruce." Tamarack we do not purchase nor do we use, unless possibly a shipper gets in a stick now and then, but we have never noticed it. Therefore we believe that some one has erred, as tamarack in our opinion can not be used.

Trusting that we have given you the desired information, we are,
Yours, very truly,

WOLF RIVER PAPER AND FIBER CO.
D. F. PECK, *Secretary.*

LETTERS FROM DR. C. A. SCHENCK, FORESTER AT BILTMORE, N. C.

DECEMBER 23, 1908.

HON. JAMES R. MANN,
*Chairman Committee on Pulp and Paper Investigation,
House of Representatives, Washington, D. C.*

DEAR MR. MANN: In response to your letter of the 21st, I have answered you to-day by wire as shown by the inclosed copy of my telegram, which is confirmed herewith.

From your letter, I take it that a Select Committee on Pulp and Paper Investigation, headed by yourself, desires to make inquiries in the woods themselves into the present and future supply of pulp wood; that the committee has had under consideration the possibilities of reforestation, and the methods adopted for the protection of the second growth; that your committee contemplates a visit to western North Carolina during the week beginning Monday, December 28; that your committee desires to see the object lessons in reforestation exhibited on the Biltmore estate.

Confirming my telegram, I beg to assure you, dear Mr. Mann, that the gates of the Biltmore estate will be wide open to you and to your committee entirely at your bidding; that Mr. Vanderbilt's purpose in forming the Biltmore estate was that of giving an object lesson in practical forestry, and he will be delighted to know that his object lesson is being heeded by representative Americans.

Naturally, results in forestry can not be shown as quickly as they can be shown in agriculture or in manufacturing. A number of years must elapse before a seedling develops into a sapling and a sapling into a pole.

Forestry at Biltmore is twenty years old at the present writing, and forestry at Biltmore can show results which, in my opinion—I am German—can not be duplicated in the Fatherland, even.

The Biltmore estate consists of 3,000 acres of planted forests, 40,000 acres of woodlands, wretched in 1888, which have been restored to productiveness under proper forestal care, and 90,000 acres of primeval forest, wherein forestry of an American type is being introduced gradually.

The forests are stocked with southern pine, spruce, balsam, hemlock, chestnut, oak, basswood, poplar, indeed, with any species that is used on a commercial scale in the manufacture of pulp and of paper.

I am particularly anxious for your committee to see, not merely the forests intensively managed in the proximity of Biltmore, but also the forests of a more primeval character, where a second-growth forest, after heavy cutting, is being obtained by no means other than protection from forest fires.

It would be a sad condition of affairs for the United States if men of Mr. Vanderbilt's wealth alone could engage in the practice of forestry.

Looking forward to your orders with reference to the proposed tour, I am, dear sir, your and your committee's

Very obedient servant,

C. A. SCHENCK.

JANUARY 2, 1909.

HON. JAMES R. MANN,

*Chairman Committee on Pulp and Paper Investigation,
House of Representatives, Washington, D. C.*

DEAR MR. MANN: Your letter of the 28th has come to hand.

I am sorry to learn that your committee will not be able to come to North Carolina, so as to study at Biltmore the possibilities of reforestation, and at Canton the use of chestnut wood for paper manufacture.

As regards the reproduction of the forests, I would like to state that the rapidity of the development of second growth depends on the climate and the soil entirely.

When all is said, it must be admitted that trees are the product of sunshine, and of moisture, and of heat. In a damp and warm climate, and in moist soil, the growth is marvelously rapid.

Under forestry conditions, wherever the stands of trees are complete, we can count for a certainty on an average annual production of 1 cord of pulp wood per acre per year. On good soil the figure is higher, and on poor soil it is lower.

The size of the trees in our planted forests varies from plants 6 inches high to plants 14 inches in diameter.

We are planting, approximately, every year 100 acres, and we can show to you the various classes of forests planted between 1888 and 1908.

As regards the rapidity of production for pulp and paper purposes, I might say that thirty years from planting, or, in the case of chestnut, twenty years after coppicing, it will be worth while to obtain a second growth.

Twenty years after coppicing (in the case of chestnut) there will be at hand, approximately, on each acre of protected forest, productive of chestnut, 20 cords of chestnut.

Thirty years after planting there will be at hand 30 cords of spruce to the acre.

I do not believe that in the year 1939 the owner of planted spruce woods will make a clean sweep of the plantation, such as he would make to-day. I believe it will be better policy at that time to remove part of the trees only, by way of thinning, and to adopt that scheme just now most remunerative in Germany.

The little booklet which I have sent to you, yclept "A forest fair in the Biltmore forest," will give you some information, and a num-

ber of pictures which may illustrate what I want to say better than I can do it by writing a long letter.

It is obvious that in the reproduction of saw logs a longer period than twenty or thirty years must elapse after planting and after coppicing.

As I understand it, your committee is interested only in raw material for the pulp and paper industry.

Saw logs, generally speaking, can not be reproduced in less than eighty years.

Logs of sufficient diameter produced more rapidly are faulty, necessarily, by being fast-grown, which means tough of fiber, and by being branchy, which means full of holes and defects.

Species of light specific gravity (white pine and spruce) are grown much faster than species of heavy specific gravity (white oak, hickory, maple, beech).

All of this I could illustrate to you more readily in an excursion through the woods of the Biltmore estate. After all, information relative to forestry, as you well know from your own experience in the northern woods, can not be obtained from books or from letters so well as it can be obtained from the woods.

I am sorry, indeed, that I shall not have a chance to show you the object lessons of the Biltmore estate, for the time being.

From your letter I take it that your committee is confronted by the question, "Shall forest reproduction be done by the Government, or shall it be left to the efforts of private interests?"

In my opinion both agencies should be put into action, and that without any delay.

Private individuals will practice forestry of a conservative nature just as soon as it will pay them so to do, or just as soon as they are sure of finding better dividends in forest conservation than in forest destruction.

The American forest owners belong to a class of men whom I would call particularly clear-headed business men.

If these men have considered it unwise to practice conservative lumbering heretofore, we do not require any further proof of the fact that forest conservation is not as remunerative as forest destruction, up to the present time.

Whether forest conservation be done by the Government directly, or is obtained at the expense of the people otherwise, that is a question of expediency merely.

Forestry will flourish as soon as the people are willing to foot the bill for (1) protection of the forest from fires, (2) reduction of the taxes encumbering a second growth, (3) high-priced lumber and high-priced cord wood.

I am, my dear Mr. Mann,

Your very obedient servant,

C. A. SCHENCK.

JANUARY 11, 1909.

HON. JAMES R. MANN,

House of Representatives, Washington, D. C.

My DEAR MR. MANN: Your letter of January 4 contains the following question: "Can spruce forests, under existing state laws, as to taxes and present fire protection, be profitably reproduced by private individuals or industrial corporations for use in business?"

To this question I am obliged to reply by an emphatic "no."

Reproduction can be profitable only when it is safe. As the matter now stands, the danger from fire under present state laws is so considerable as to make investments in second-growth spruce particularly risky.

A risky investment must promise very high returns to find favor with the investor. Dividends of 10 or 20 per cent can not be expected, in my humble opinion, from forestal investments under any circumstances, and a dividend of from 4 to 8 per cent is out of keeping with the risk taken by the man investing his dollars and cents in second-growth spruce forests.

The influence of taxation as an expense in forestry is such as to discourage the investor in second growth.

Financially a tax of 4 cents per acre is not so bad, provided that the price of spruce stumpage is as high in 1930 in this country as it is to-day in the old. In the German Black Forest and in the Bavarian Forest the price of spruce stumpage as used at the pulp mills is approximately \$12 a cord.

You can imagine that the woods in question, producing per acre per annum a cord of spruce wood, can readily stand an annual tax of as much as 20 cents to the acre.

The investment in second growth, or, rather, the investment by which a second growth may be produced, be it by planting or be it from self-sown seed, is approximately, in my opinion, the sum of \$10 or \$12 an acre. By this investment can be secured a complete and dense second growth, growing at the rate of 1 cord per annum, without fail, barring fires.

If the price of stumpage remains as low as it is to-day, it will not be profitable to secure a second growth when removing the first growth; if the price of second growth runs up in the next thirty years to \$10 a cord, then, and in that case, the prospects for American forestry are good, barring fires.

It is quite true that the problem of forest fires is identical with the problem of American forestry.

The existing state laws are entirely insufficient to warrant the safety of silvicultural investments. The owners of cut-over woodlands show little interest in legislation safeguarding second growth, because stumpage values are low in this country and the certainty has not yet dawned upon the minds of most lumbermen or owners of cut-over lands that the prices of stumpage in days to come must run as high in this country as they are now running in Germany or France.

If Congress prevents by suitable custom duties the importation of wood and lumber from the outside, the possibility of increased stumpage values will present itself to the owners of cut-over woodlands; such owners will be eager to have their woodlands protected from fires, and will be more eager than they are now to invest a few dollars per acre for the production of second growth.

Here at Biltmore, in the planted forests we have been fairly safe from forest fires so far. I am quite sure, however, that this condition will not continue.

The natural second growth obtained in primeval woods safe from fires has suffered badly, here as well as elsewhere, and many an excellent second growth of chestnut and poplar raised by me during the

last fifteen years has been utterly destroyed, with little chance for another second growth left, because of forest fires.

The profitable reproduction of stumpage depends, naturally, on stumpage prices.

As long as stumpage can be imported into New York from Canada as cheaply as it can be transferred from Wisconsin, and cheaper than it can be transferred from the southern Appalachian region into New York, the chances for profit obtainable from sylvic investments will be slim.

Canada will be able, I should judge, to supply us for a number of years with spruce—say for thirty years. After a lapse of thirty years the Canadian spruce woods and our own spruce woods will be exhausted, and there will be presented a condition of affairs as deplorable as that which now confronts Italy and Spain with reference to the forests.

To me it seems that the question of cheap paper is less important to the American commonwealth than the problem of expensive stumpage.

If stumpage is cheap, no one can afford to produce it, neither here nor in Germany. If we want forestry we, as a people, through Congress, have to see to it that forestry is a good investment.

It will be a good investment if Congress enacts proper laws tending to secure for the owner of second growth protection by a federal forest police (the federal marshal and his deputies can act as such police, and no new organization is required).

As regards the cheapness of paper, I, for one, am in favor of expensive printing paper, particularly for the reason that 90 per cent of the papers contain "stuff" that is not fit to print.

Many an advertisement covering a whole page contains reading matter of six lines only; many a page is devoted to descriptions of murders and other obnoxious matter which can not be considered of educational value, and it should be cut down, by all means.

If printing paper is more expensive, education by the newspapers will be fostered rather than checked.

Unless Congress takes a firm stand and makes private forestry remunerative, there will be no private forestry; there will be 500,000,000 acres of barren lands, formerly productive of forests, within fifty years.

Have your choice.

Have cheap paper for another thirty years, and after that time very expensive paper, and vast areas of unproductive land.

Yours for high prices of paper, pulp, and spruce, and with deep respect,

C. A. SCHENCK.

INFORMATION CONCERNING PULP AND PAPER MANUFACTURING INDUSTRY IN UNITED STATES.

The CHAIRMAN. Referring to the following letter and tables compiled by the Census Office, which we will publish now for information. I will say that many new schedules have been received since this tabulation, and new and more complete tables are being prepared by experts under the direction of the committee.

The information in the schedules is received in confidence, and no facts relating to any particular mill will be disclosed in any way.

DEPARTMENT OF COMMERCE AND LABOR,
BUREAU OF THE CENSUS,
Washington, December 1, 1908.

HON. JAMES R. MANN,
*Chairman Select Committee on
Pulp and Paper Investigation,
House of Representatives, Washington, D. C.*

SIR: I respectfully transmit herewith tabulations made in this bureau of the replies to the schedule inquiries addressed by your committee to manufacturers of pulp and paper.

About 900 schedules relative to the manufacture of pulp and paper were mailed, and approximately 450 replies were received, but only 188 of these, covering the operations of 235 plants, have been tabulated in the tables presented herewith. A considerable number of the schedules of the paper manufacturers were thrown out because their operations did not fall within the scope of the investigation. Especially is this true of those returning as raw materials rags, old paper, straw, hemp, cotton waste, and the like.

It is thus seen that the results obtained by the committee are incomplete and not comparable with census statistics. To illustrate the impracticability of comparing the statistics of these tables with those of the census, it may be stated that the capital returned by the establishments represented in the tabulations herewith amounts to \$147,757,670, whereas the total capital invested in the manufacture of paper and wood pulp during the calendar year 1904, as shown by the census figures, was \$277,444,471. The total cost of materials returned by the establishments represented in the tabulations made from the returns to the committee is \$49,183,106, compared with \$111,251,478 for the entire industry as returned at the census of 1905. The value of products returned by the establishments represented in the tabulations herewith is \$82,716,044, compared with \$188,715,189 for the entire industry as shown at the 1905 census. In addition to this there has doubtless been an increase during the last three years in the number of establishments engaged in this manufacture, and hence it is impracticable to state how nearly the present condition of the entire industry is revealed by these imperfect statistics.

Table 1.—Number of establishments returned; capital invested; salaried employees and wage-earners; and rent and taxes; by States, 1907.

Table 2.—Number of establishments returned; cost of materials used, according to kind, quantity, and value; by States, 1907.

Table 3.—Number of establishments returned, and quantity and value of manufactured products; by States, 1907.

Table 4.—Cost of manufacturing product; percentage represented by wages, by materials, and by all other expenses of production; 1907.

Table 5.—Comparative monthly average selling prices per ton of news-print paper; by States, 1906 and 1907.

Table 6.—Comparative monthly average selling prices per ton of several kinds of paper; by States, 1906 and 1907.

Table 7.—Number of plants reported; yearly capacity of the mills for the manufacture of paper and pulp; and the average number of days operated in 1907.

Hoping that the material transmitted may prove of service, I am,
Respectfully,

S. N. D. NORTH, *Director.*

TABLE 1.—Number of establishments returned, capital invested, salaried employees and wage-earners, rents, and taxes, by States, 1907.

State.	Number of establishments.	Capital (amount).	Salaried employees.			Wage-earners.			Rent, taxes, etc.
			Number.	Salaries.	Average salary.	Number.	Wages.	Average wage.	
Total.....	188	\$147,757,670	1,413	\$2,757,849	\$1,952	26,409	\$13,567,620	\$514	\$7,680,773
Connecticut.....	6	830,627	22	33,378	1,517	238	134,025	563	69,064
Illinois.....	4	724,075	19	18,677	983	154	89,500	581	35,368
Indiana.....	3	1,392,970	18	21,909	1,217	172	90,639	527	77,963
Maine.....	5	3,012,144	30	71,743	2,391	791	417,264	528	196,203
Massachusetts.....	21	60,051,195	397	819,617	2,065	8,302	4,019,519	484	1,822,139
Michigan.....	14	11,148,272	145	238,453	1,645	2,628	1,290,002	491	754,052
Minnesota.....	3	2,365,034	21	32,393	1,543	407	240,625	591	153,196
New Hampshire.....	4	986,853	19	26,248	1,381	207	105,828	511	44,779
New Jersey.....	8	1,794,814	37	126,172	3,410	566	307,744	544	147,392
New York.....	45	37,278,774	299	658,076	2,201	6,249	3,493,208	559	2,263,851
Ohio.....	9	1,496,770	31	39,460	1,273	397	218,184	550	102,034
Pennsylvania.....	20	10,993,710	126	248,821	1,975	2,563	1,289,631	503	905,886
Vermont.....	10	1,162,609	26	55,866	2,149	265	133,620	504	62,013
Virginia.....	3	556,982	18	32,798	1,822	145	61,225	422	81,506
West Virginia.....	3	216,382	8	14,450	1,806	118	62,797	532	36,549
Wisconsin.....	23	11,488,001	162	260,346	1,607	2,815	1,395,781	496	746,055
All other States ^a	7	2,258,468	35	59,442	1,698	392	218,228	557	138,777

^a Includes Maryland, with two establishments; Delaware, Missouri, North Carolina, South Carolina, and Washington, with one establishment each.

TABLE 2.—Number of establishments returned, cost of materials used, expressed by kind, quantity, and value, by States, 1907.

	Number of establishments.	Cost of materials used during the year.					
		Wood for pulp.			Ground-wood fiber.		
		Cords.	Value.	Average price (per cord).	Tons.	Value.	Average price (per ton).
Total.....	188	1,021,383	\$7,909,012	\$7.80	111,497	\$2,378,011	\$21.33
Connecticut.....	6				4,518	79,065	17.50
Illinois.....	4						
Indiana.....	3	200	1,500	7.50	1,248	29,941	23.11
Maine.....	5	85,020	512,256	6.03	7,854	137,300	17.48
Massachusetts.....	21	22,222	166,276	7.48	10,130	214,099	21.14
Michigan.....	14	99,441	578,555	5.82	11,572	209,247	23.27
Minnesota.....	3	29,601	245,353	8.29	1,872	44,505	23.77
New Hampshire.....	4	1,173	4,861	4.14	641	14,566	22.72
New Jersey.....	8				421	13,044	30.98
New York.....	45	484,705	3,939,492	8.13	22,224	454,668	20.47
Ohio.....	9				1,300	31,150	23.96
Pennsylvania.....	20	91,049	757,817	8.32	619	15,820	24.75
Vermont.....	10	15,043	143,830	9.56	6,248	126,506	20.25
Virginia.....	3						
West Virginia.....	3						
Wisconsin.....	23	173,244	1,513,278	8.73	32,090	714,587	22.27
All other States ^a	7	19,685	105,788	5.37	10,760	233,813	21.73

^a Includes Maryland, with two establishments; Delaware, Missouri, North Carolina, South Carolina, and Washington, with one establishment each.

TABLE 2.—Number of establishments returned, cost of materials used, expressed by kind, quantity, and value, by States, 1907—Continued.

	Number of establishments.	Cost of materials used during the year.					
		Sulphite.			Soda.		
		Tons.	Value.	Average price (per ton).	Tons.	Value.	Average price (per ton).
Total.....	188	180,367	\$8,542,565	\$47.36	49,832	\$2,159,016	\$43.33
Connecticut.....	6	1,415	60,620	42.84	64	2,876	44.94
Illinois.....	4	46	1,869	40.63			
Indiana.....	3	1,711	80,926	47.29			
Maine.....	5	738	25,508	34.56			
Massachusetts.....	21	65,546	3,488,322	53.22	29,893	1,289,634	43.15
Michigan.....	14	15,058	616,953	40.97	8,875	381,245	42.96
Minnesota.....	3	4,826	230,205	47.70			
New Hampshire.....	4	3,302	151,270	45.81	3,770	162,186	43.02
New Jersey.....	8	502	22,277	44.38			
New York.....	45	29,997	1,221,606	40.72	405	18,348	45.30
Ohio.....	9	4,078	178,667	43.81	132	6,203	46.99
Pennsylvania.....	20	6,462	317,512	48.91	3,893	171,687	44.10
Vermont.....	10	6,133	247,482	40.35	26	1,124	43.23
Virginia.....	3	139	6,435	46.29	915	39,537	43.21
West Virginia.....	3	70	2,842	40.60			
Wisconsin.....	23	37,067	1,737,936	46.90	1,801	82,247	45.67
All other States ^a	7	3,257	152,135	46.71	88	4,929	56.01

	Number of establishments.	Cost of materials used during the year.					
		All other.			Fuel (value).	Other materials (value).	Total cost (amount).
		Tons.	Value.	Average price (per ton).			
Total.....	188	31,489	\$719,856	\$22.86	\$5,400,935	\$22,013,711	\$49,183,106
Connecticut.....	6				59,164	204,487	406,212
Illinois.....	4				34,767	235,986	272,622
Indiana.....	3				43,924	213,566	369,857
Maine.....	5				222,612	382,972	1,280,648
Massachusetts.....	21	299	17,308	57.89	1,159,389	7,983,990	14,318,018
Michigan.....	14	23,333	516,041	22.12	656,828	1,564,555	4,583,424
Minnesota.....	3				61,769	106,388	688,220
New Hampshire.....	4				44,030	203,412	580,325
New Jersey.....	8	1,150	44,850	39.00	125,668	756,163	962,002
New York.....	45	3,808	62,231	16.34	1,491,466	4,562,110	11,750,111
Ohio.....	9				102,411	712,793	1,031,224
Pennsylvania.....	20	657	30,215	45.99	579,560	2,686,064	4,558,195
Vermont.....	10				38,246	106,758	603,952
Virginia.....	3				11,400	158,466	215,638
West Virginia.....	3				30,934	303,758	327,534
Wisconsin.....	23	2,242	49,211	21.95	588,999	1,554,335	6,240,593
All other States ^a	7				149,778	277,888	924,331

^a Includes Maryland, with two establishments; Delaware, Missouri, North Carolina, South Carolina, and Washington, with one establishment each.

TABLE 3.—Number of establishments returned, quantity and value of manufactured products, by States, 1907.

	Number of establishments.	Quantity and value of manufactured products.					
		News paper.					
		In rolls.			In sheets.		
		Tons.	Value.	Average price (per ton).	Tons.	Value.	Average price (per ton).
Total.....	188	128,970	\$5,300,508	\$41.75	53,550	\$2,271,019	\$42.41
Connecticut.....	6	2,035	85,877	42.20			
Illinois.....	4						
Indiana.....	3						
Maine.....	5						
Massachusetts.....	21						
Michigan.....	14	13,806	608,862	44.10			
Minnesota.....	3	22,608	955,581	42.27	4,113	199,141	48.41
New Hampshire.....	4	1,852	97,919	52.87	789	41,693	52.84
New Jersey.....	8						
New York.....	45	39,908	1,573,193	39.42	31,701	1,254,495	39.57
Ohio.....	9						
Pennsylvania.....	20	825	43,867	53.17	465	25,877	55.65
Vermont.....	10						
Virginia.....	3						
West Virginia.....	3						
Wisconsin.....	23	33,317	1,335,826	40.09	16,482	749,813	45.49
All other States ^a	7	12,619	599,383	47.50			

	Number of establishments.	Quantity and value of manufactured products.					
		All other varieties of paper.			Pulp and fiber sold.		
		Tons.	Value.	Average price (per ton).	Tons.	Value.	Total value, amount.
Total.....	188	870,900	\$66,311,978	\$76.14	202,702	\$6,979,538	\$34.43 \$1,853,001 \$82,716,044
Connecticut.....	6	14,461	586,190	40.54			672,067
Illinois.....	4	14,561	380,488	26.13			476,983
Indiana.....	3	18,349	653,382	35.61			653,382
Maine.....	5	24,940	1,160,330	46.53	28,638	1,078,190	2,238,520
Massachusetts.....	21	208,034	23,617,852	113.53			23,620,065
Michigan.....	14	107,420	6,974,764	64.93	6,851	273,280	7,228,667
Minnesota.....	3				3,925	81,719	1,236,441
New Hampshire.....	4	7,354	720,866	98.02			800,478
New Jersey.....	8	6,450	580,179	89.95			1,825,475
New York.....	45	202,987	13,481,898	66.42	97,892	3,767,637	20,211,082
Ohio.....	9	26,467	1,529,235	57.78			1,630,835
Pennsylvania.....	20	106,700	7,500,040	70.29	7,432	222,051	8,077,084
Vermont.....	10	12,868	788,422	61.27	15,995	262,995	1,051,417
Virginia.....	3	5,340	451,093	84.47			451,093
West Virginia.....	3	5,631	480,295	85.29			480,295
Wisconsin.....	23	94,051	6,450,475	68.58	41,932	1,293,222	9,845,803
All other States ^a	7	15,287	956,469	62.57	37	444	1,556,357

^a Includes Maryland with two establishments; Delaware, Missouri, North Carolina, South Carolina, and Washington with one establishment each.

TABLE 4.—Total cost of manufacturing paper and pulp, per cent of total cost represented by wages, materials, and other expenses.

State.	Establishments reported (number).	Total cost of manufacturing (amount).	Cost of production represented by—					
			Wages.		Materials.		All other expenses.	
			Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.
Total.....	188	\$73,200,446	\$13,567,620	18.5	\$49,183,106	67.2	\$10,449,720	14.3
Connecticut.....	6	642,679	134,025	20.9	406,212	63.2	102,442	15.9
Illinois.....	4	417,165	89,500	21.5	272,622	65.3	55,043	13.2
Indiana.....	3	560,994	90,639	16.2	369,857	65.9	100,498	17.9
Maine.....	5	1,965,858	417,264	21.2	1,280,648	65.2	267,946	13.6
Massachusetts.....	21	21,024,729	4,019,519	19.1	14,318,018	68.1	2,687,192	12.8
Michigan.....	14	6,872,690	1,290,002	18.7	4,583,424	66.7	999,264	14.6
Minnesota.....	3	1,114,436	240,625	21.6	688,220	61.7	185,591	16.7
New Hampshire.....	4	757,179	105,828	14.0	580,325	76.6	71,026	9.4
New Jersey.....	8	1,543,310	307,744	20.0	962,002	62.3	273,564	17.7
New York.....	45	18,173,526	3,493,208	19.2	11,750,111	64.7	2,930,207	16.1
Ohio.....	9	1,390,902	218,184	15.6	1,031,224	74.2	141,494	10.2
Pennsylvania.....	20	7,002,443	1,289,531	18.4	4,558,195	65.1	1,154,717	16.5
Vermont.....	10	905,411	133,520	14.8	663,952	73.3	107,939	11.9
Virginia.....	3	391,421	61,225	15.7	215,838	55.1	114,358	29.2
West Virginia.....	3	453,290	62,797	13.9	337,634	74.4	52,959	11.7
Wisconsin.....	23	8,643,675	1,395,781	16.1	6,240,593	72.2	1,007,301	11.7
All other States ^a	7	1,340,738	218,228	16.3	924,331	68.9	198,179	14.8

^a Includes Maryland with two establishments; Delaware, Missouri, North Carolina, South Carolina, and Washington with one establishment each.

TABLE 5.—Comparative monthly average selling prices, per ton, of news-print paper, by States, 1906 and 1907.

State.	Year.	Average prices per ton (2 000 pounds)—											
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Connecticut.....	1907	\$44.00	\$44.00	\$44.00	\$44.00	\$44.00	\$44.00	\$44.00	\$44.00	\$44.00	\$44.00	\$44.00	\$44.00
	1906	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
Michigan.....	1907	37.79	36.95	35.83	35.66	37.22	39.44	40.40	41.03	41.73	42.53	43.31	42.58
	1906	35.11	33.79	34.18	35.59	35.15	34.60	33.49	33.68	33.90	35.84	37.22	34.38
Minnesota.....	1907	37.15	37.00	37.40	37.60	37.60	39.20	39.29	39.49	41.60	42.10	43.50	44.40
	1906	36.90	37.30	37.40	37.40	36.80	37.30	36.69	36.70	37.30	36.80	37.10	36.00
New Hampshire.....	1907	65.76	61.30	58.40	60.00	61.30	61.80	59.60	59.90	59.60	61.12	60.00	59.30
	1906	58.36	56.46	60.56	60.36	59.80	61.24	61.30	58.26	59.00	60.60	61.26	63.80
New York.....	1907	38.88	40.73	41.46	42.46	43.45	43.54	43.57	43.75	44.10	45.31	44.85	45.09
	1906	35.61	36.65	36.74	36.84	37.31	37.43	37.59	37.53	34.39	38.05	38.56	38.77
Pennsylvania.....	1907	52.00	52.00	52.00	54.00	54.00	54.00	55.00	55.00	56.00	56.00	56.00	56.00
	1906	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00
Wisconsin.....	1907	47.92	49.51	49.42	51.03	51.27	51.51	51.29	52.62	53.55	53.81	53.52	53.95
	1906	47.16	47.29	48.08	47.28	47.39	46.15	45.75	46.06	46.73	47.72	48.22	48.39

The statistics shown in the table were computed from reports of establishments which produced in 1907, 126,970 tons of news print, in rolls, valued at \$5,300,508, or an average of \$41.75 per ton, and 53,550 tons in sheets, valued at \$2,271,019, or an average of \$42.41 per ton. Computed on the combined figures the average price is \$41.94. According to the census there were produced in the calendar year 1904, 840,802 tons, in rolls, valued at \$32,763,308, or an average of \$38.97 per ton, and 72,020 tons in sheet, valued at \$3,143,152, or an average of \$43.64 per ton. It thus appears that the quantity of news print represented in Table 5 for 1907 is 180,520 tons, or about 20 per cent of the products reported for the census of 1905. The average price per ton of the averages, as returned by the manufacturers for the month of January, 1907, is \$46.21, compared with \$49.33 for December of the same year. The comparative prices for 1906 are \$43.59 for January and \$44.85 for December.

wages and the increases in the various occupations; and to get anything that would be an average of increase over a period of years is going to be extremely difficult, for the reason that the number of men employed varies from month to month, and to get figures that would be absolutely accurate would take a great deal of time.

The CHAIRMAN. The fact is, it is not so important now, in that respect, as when we commenced this investigation, because then there had been a considerable increase in the price of news-print paper, and at that time the question had been raised as to whether the increase was due to natural or artificial causes. It has now been developed, I think, that the increase in the price of news-print paper has been coincident with the increase in cost of production. But now we want to get at the question as to the wage cost in this country and in other countries, especially as relating to the tariff question.

(Adjourned at 1 p. m.)

COMMITTEE ON PAPER AND PULP INVESTIGATION,
Wednesday, December 30, 1908.

EXPERIMENTS WITH CORNSTALKS, ETC.—continued.

STATEMENT OF MR. NATHAN A. COBB, IN CHARGE OF CROP TECHNOLOGY AND FIBER INVESTIGATIONS, DEPARTMENT OF AGRICULTURE.

The CHAIRMAN. Doctor, will you give the stenographer your full name?

Mr. COBB. Nathan A. Cobb.

The CHAIRMAN. What is your position?

Mr. COBB. Agricultural technologist in the Department of Agriculture at Washington.

The CHAIRMAN. Recently what work have you been specially engaged upon?

Mr. COBB. I have only recently come to the Agricultural Department. This division has been organized since my arrival at the department for the purpose of taking up the problems that lie more particularly between the grower and the manufacturer.

The CHAIRMAN. Of what?

Mr. COBB. Of any product—that is to say, it covers textiles, foods, beverages.

The CHAIRMAN. Where were you before you came here?

Mr. COBB. I had a short contract with the sugar planters' association of Hawaii, and organized their division of pathology and physiology in their experiment station; but before that I was for five years in charge of the pathological work of the department of agriculture in Sydney, New South Wales, Australia. For three years previous I was commissioned by the Government of New South Wales to visit this country and Europe from that place to examine into agricultural industries. Previous to that I was seven years a pathologist in that same department, at Sydney.

The CHAIRMAN. You have been in charge of the pulp and paper investigation in the Bureau of Plant Industry, have you?

Of the 235 plants shown in the above tabulation, 152 were returned as manufacturing paper exclusively, 23 pulp exclusively, and 60 both paper and pulp. In computing the averages, therefore, this segregation has been observed.

DEPARTMENT OF COMMERCE AND LABOR,
BUREAU OF THE CENSUS,
Washington, December 29, 1908.

HON. JAMES R. MANN,
*Chairman Select Committee on Paper and Pulp Investigation,
House of Representatives, Washington, D. C.*

DEAR MR. MANN: I inclose a short statement in regard to the average prices of news-print paper. These averages have been computed from the reports made by newspaper publishers, and also from the testimony taken by the committee. I have excluded as far as possible all data concerning paper other than news print, and have made the statement as short as possible, avoiding the repetition of statistics. The text can be extended if you so desire by quoting the figures and making comparisons, but the amount of matter would depend upon your general scheme for the report.

In making the digest of the testimony that was sent you some time ago we brought together all of the information under different subjects. There is considerable on the subject of "price of paper" which could be incorporated in the report if you desire.

The average price of paper is subject to all kinds of limitations, which should be given due weight in comparing it with actual prices paid by individual consumers. Some of these conditions are described in the inclosed statement.

The original reports of the newspapers are available for the preparation of almost any line of statistics concerning prices, and if you desire totals giving prices of paper other than news print, or further detailed description and comparison of the statistics, I shall take pleasure in complying with your wishes.

It is unfortunate that the schedule sent newspaper publishers did not call for the amount of paper consumed and the actual cost, so that a true average cost per hundredweight could be obtained by a division of the price by the quantity. The averages reported on the schedules are far from satisfactory.

Very truly, yours,

W. M. STEUART,
Chief Statistician for Manufactures.

PRICES OF PAPER.

The cost of paper to publishers is one of the most important features of the investigation, and information relative to this has been secured from both manufacturers and consumers. The committee has discovered that while all parties interested are willing to furnish quotations of prices, there is no uniformity in the price given, even where purchases were made during the same period. Among the causes which are responsible for these conditions, the following were brought out in the correspondence with the publishers and manufacturers and in the committee hearings:

1. The fact that some of the purchases were made under contract and others on the open market. Publishers buying under contract, as a rule, obtain more favorable terms than those buying on the market.

2. The differences in the time when the respective contracts were made and in the duration of the contract, inasmuch as the contract price ordinarily bears a cer-

put engravings, such as half tones, and the fact that the engraver can now-a-days make such fine engravings, that there is constant demand for a better surface upon which to display those engravings, and to meet that we are producing a surface and a paper that can not last, in the nature of things.

The CHAIRMAN. Do you refer to book papers?

Mr. COBB. More particularly, of course, to book paper, but there is a constant demand on the part of newspapers to use half tones; they use more and more of them.

The CHAIRMAN. News print paper is usually composed largely of ground wood, but still has an acid in it, and it practically burns up when it comes in contact with the oxygen of the air for a long time.

Mr. COBB. The filled papers oftentimes have a good fiber back of the filling. In casting about, of course, I had to take the information that was given me as to the situation here. I was not cognizant of it, having been out of the country for so many years. I understood that there was a demand for a cheaper paper of that class, and of course the fact was brought forcibly to my attention that the price of wood was increasing so rapidly that the price of paper made from it was also increasing; and it seemed to me that one of the best things to do would be to look carefully into the vegetable matter that we are producing as by-products of our biggest crops, and there came up in that connection flax, of which we burn, as straw, several million acres annually. Also of cornstalks, of which we have an immense quantity, and of rice straw, of which there is a considerable quantity, and cotton stalks. And incidentally I would class with the maize, broom corn and sorghum as possibilities perhaps, although I have not got around to take up the matter of broom corn; but I think there is good reason to believe that we have there a plant that contains valuable fiber. We have been selecting broom corn for generations for the production of a tough straw at the top for conversion into brooms, and naturally the result of that selection has been a tougher and tougher broom straw. A correlated toughness probably has arisen in the fiber cells that are in the tissues. I think, although the quantity of that plant is small at present in comparison with others we raise, that it is something which ought to be looked into. As I say, I have not yet gone beyond making inquiries as to whether it has been used, but I have evidence it has been used by Mr. Van Wyck in New York, whose address I can give you. He has written me that he has established a factory, and seems to feel confident that he will be successful in making a commercial article out of broom corn. I have had no personal acquaintance with Mr. Van Wyck, whom I think is a retired business man, and therefore didn't continue this production for that reason. He has sent me some samples of his paper. His factory has been burned.

Mr. SIMS. Made from broom corn?

Mr. COBB. Yes.

Mr. SIMS. From the straw or body?

Mr. COBB. I take it it is from the stalk. I suspect that the tops would naturally be used for brooms, but there can be little question that the tough quality of the top will extend to the stalk. The fiber of the stalk will be of toughness corresponding to that in the top.

Then, I think it wise to take into account also those wild plants which we have in considerable areas and which might possibly serve

TABLE 1.—Average price of news-print paper per hundred weight, compiled from reports of newspapers—Continued.

	Period.	Weeklies.		All other.	
		Number reporting.	Average price.	Number reporting.	Average price.
Average price of paper purchased in rolls.....	(a)	32	\$2.84	7	\$2.54
Average price of paper purchased in sheets.....	(a)	502	3.13	40	3.08
Average price where freight is included.....	(a)	196	3.10	20	2.96
Average price where freight is not included.....	(a)	215	2.13	19	3.01
Average price paid in selected years by all publications, reported without reference to the inclusion or exclusion of freight charges, the quantity purchased, or the manner of purchase.	1907	426	2.82	40	2.72
	1906	310	2.64	28	2.48
	1900	178	2.51	16	2.36
	1897	94	2.39	11	2.04
	1894	63	2.56	7	2.25
	1890	51	2.81	6	2.43

a Spring of 1908.

TABLE 2.—Average price of news-print paper per hundredweight, compiled from reports of trade, fraternal, and religious papers.

	Period.	Total.		Dailies.		Weeklies.	
		Number reporting.	Average price.	Number reporting.	Average price.	Number reporting.	Average price.
Average price of paper purchased in rolls.....	(a)	41	\$2.71	13	\$2.70	14	\$2.74
Average price of paper purchased in sheets.....	(a)	91	3.63	6	3.35	58	3.46
Average price where freight is included.....	(a)	74	3.26	11	2.95	40	3.42
Average price where freight is not included.....	(a)	17	3.23	3	2.52	9	3.21
Average price paid in selected years by all publications reporting without reference to the inclusion or exclusion of freight charges, the quantity purchased, or the manner of purchase.	1907	113	3.04	18	2.48	60	3.17
	1906	81	2.88	16	2.44	40	3.02
	1900	40	2.85	7	2.07	20	3.08
	1897	23	2.93	4	2.03	12	2.89
	1894	17	3.28	3	2.43	9	2.92
	1890	14	3.47	2	2.84	7	3.27

	Period.	Monthlies.		All other.	
		Number reporting.	Average price.	Number reporting.	Average price.
Average price of paper purchased in rolls.....	(a)	12	\$2.73	2	\$2.42
Average price of paper purchased in sheets.....	(a)	18	3.83	9	3.89
Average price where freight is included.....	(a)	16	3.00	7	3.46
Average price where freight is not included.....	(a)	4	3.87	1	3.05
Average price paid in selected years by all publications reporting without reference to the inclusion or exclusion of freight charges, the quantity purchased, or the manner of purchase.	1907	26	3.04	9	3.29
	1906	19	3.01	6	2.78
	1900	9	3.19	4	2.35
	1897	5	3.86	2	2.57
	1894	4	4.80	1	2.89
	1890	3	4.87	2	2.70

a Spring of 1908.

TABLE 3.—Average prices of news-print paper, per hundredweight, compiled from reports of magazines.

	Period.	Total.		Weeklies.	
		Number reporting.	Average price.	Number reporting.	Average price.
Average price of paper purchased in rolls.....	(a)	8	\$2.77	1	\$4.00
Average price of paper purchased in sheets.....	(a)	5	4.17	1	4.20
Average price of paper where freight is included.....	(a)	9	3.29	1	4.20
Average price of paper where freight is not included.....	(a)	1	3.75		
Average price paid in selected years by all publications reporting, without reference to the inclusion or exclusion of freight charges, the quantity purchased, or the manner of purchase.....	1907	9	2.88	2	3.75
	1905	6	2.35	1	3.50
	1900	2	2.14		
	1897	1	1.90		
	1894	1	2.75		
	1890				

	Period.	Monthlies.		All other.	
		Number reporting.	Average price.	Number reporting.	Average price.
Average price of paper purchased in rolls.....	(a)	7	\$2.59		
Average price of paper purchased in sheets.....	(a)	3	4.30	1	\$3.75
Average price of paper where freight is included.....	(a)	8	3.18		
Average price of paper where freight is not included.....	(a)			1	3.75
Average price paid in selected years by all publications reporting, without reference to the inclusion or exclusion of freight charges, the quantity purchased, or the manner of purchase.....	1907	7	2.63		
	1905	5	2.12		
	1900	2	2.14		
	1897	1	1.90		
	1894	1	2.75		
	1890				

a Spring of 1908.

In making the above tabulation all returns were excluded in which the publishers specifically indicated that they were reporting the price, not of news-print paper, but of book paper or other superior grades. In spite of this fact, however, the high averages shown in some instances in Tables 2 and 3 make it seem probable that in some cases the publishers returned the prices paid for other varieties than news-print paper without specifying this fact. The averages in these tables must therefore be accepted with some degree of caution.

It will be observed that in Table 1 the average price when freight is included is less than the average when freight is excluded. It is difficult to assign any reason for this, although it may be to some extent due to the fact that the publications in the western portion of the country, who more often reported the price excluding freight, seem to have paid a relatively higher price than those in the East, which furnished the greater proportion of the returns in which freight was included.

According to Table 1, the average price paid for news-print paper in the spring of 1908, by the publishers reporting, was \$2.57 per hundredweight for paper purchased in rolls and \$3.08 for paper purchased in sheets. The former figure shows a remarkably close correspondence with the average deduced from the prices reported to the committee as paid by 22 publishers who appeared before it in person and by 172 publishers who sent responses to the telegram sent out by Mr. Ridder on May 1, this average being \$2.56. It must be remembered, however, that there is no uniformity in these returns with regard to the inclusion or exclusion of freight charges.

In connection with the above tabulation the following tabular information, taken from Bulletin 75 of the Bureau of Labor, may be of interest:

TABLE 4.—*Wholesale prices per pound of news paper (wood) in New York, on the first of each month: 1907.^a*

Month.	Price.	Month.	Price.
January.....	\$0.0225-0.0250	August.....	\$0.0245-0.0265
February.....	.0200-.0225	September.....	.0245-.0265
March.....	.0200-.0225	October.....	.0255-.0275
April.....	.0245-.0265	November.....	.0255-.0275
May.....	.0245-.0265	December.....	.0255-.0275
June.....	.0245-.0265		
July.....	.0245-.0265	Average.....	.0249

^a The figures presented in this table are taken from Bulletin 75 of the Bureau of Labor, page 394. The original quotations are from the New York Journal of Commerce and Commercial Bulletin.

TABLE 5.—*Monthly actual and relative prices of news paper in 1907 and base price (average for 1890-1899).^a*

[Average for 1907 computed from quotations in Table 1.]

Month.	Price per pound.	Relative price.	Month.	Price per pound.	Relative price.
Average, 1890-1899.....	\$0.0299	100.0	August.....	\$0.0255	85.3
January.....	.0238	79.6	September.....	.0255	85.3
February.....	.0213	71.2	October.....	.0265	88.6
March.....	.0213	71.2	November.....	.0265	88.6
April.....	.0255	85.3	December.....	.0265	88.6
May.....	.0255	85.3			
June.....	.0255	85.3	Average, 1907.....	.0249	83.3
July.....	.0255	85.3			

^a The figures presented in this table are taken from Bulletin 75 of the Bureau of Labor, page 414. The monthly prices are based upon the figures given in Table 5.

TABLE 6.—*Average yearly actual and relative prices of news paper, 1890-1907, and base price, 1890-1899.^a*

Year.	Average price per pound.	Relative price.	Year.	Average price per pound.	Relative price.
Average, 1890-1899.....	\$0.0299	100.0	1899.....	\$0.0209	69.9
1890.....	.0382	127.8	1900.....	.0281	94.0
1891.....	.0340	113.7	1901.....	.0226	75.6
1892.....	.0340	113.7	1902.....	.0242	80.9
1893.....	.0318	106.4	1903.....	.0253	84.6
1894.....	.0323	108.0	1904.....	.0267	89.3
1895.....	.0308	103.0	1905.....	.0242	80.9
1896.....	.0275	92.0	1906.....	.0219	73.2
1897.....	.0271	90.6	1907.....	.0249	83.3
1898.....	.0219	73.2			

^a The figures presented in this table are taken from Bulletin 75 of the Bureau of Labor, page 452.

It will be noted that according to the above authority the average market price of news-print paper in New York during 1907 was \$2.49 per hundredweight, while the average of the prices reported by the newspapers sending replies to the committee's inquiry was \$2.53, a remarkably close approximation. For 1905 the figures are even closer, the average wholesale price in the New York market having been \$2.42, while the average deduced from the schedules is \$2.44. For the remainder of the years specified in the schedule sent out by the committee the averages show a wide difference, however, which in 1890 amounts to 97 cents per hundredweight.

The above tables of the Bureau of Labor were made up on a uniform basis, and the price for each year represents presumably the mill price plus the freight rate to New York, while the number of publications upon which the averages in Table 1 are based varies from 116 in 1890, to 1,020 in 1897, with a consequent variation in the factors

affecting the average reported for any given year. It should be noted, however, that the general movement of the prices shown in Table 1 is virtually the same as that shown in Table 6, the maximum price shown in both cases for the years presented in Table 1 being for 1890 and the minimum in 1897, with a steady decline from 1890 to 1897 and a steady increase from 1897 to 1907.

According to Table 6 the lowest average wholesale price of news-print paper in the New York market since 1890 was \$2.09 per hundredweight, reported in 1899, while the highest was \$3.82 per hundredweight, reported in 1890. The lowest wholesale quotation during this period was from \$1.75 to \$2 per hundredweight for October, 1899, and the highest from \$3.75 to \$4.50 per hundredweight for January, 1890.

In connection with the statistics already presented it may be well to present the following comparative statement, which shows the prices paid at different times by 19 publications whose representatives appeared before the committee.

TABLE 7.—Comparative statement of prices paid at different times by the publications represented at the hearings.

Publication.	Period covered by contract.	Year in which contract was made.	Prices paid.		Source of supply.
			Delivered.	At mill.	
Maryland:					
Baltimore American.....	Jan., 1908, to Jan., 1909.....	1907	\$2.50	.....	International Paper Co.
Do.....	Jan. 1, 1906, to Dec 31, 1907.....	1905	1.90	.....	Do.
Illinois:					
Chicago Tribune.....	Jan., 1905, to Jan., 1910.....	1904	(a)	.....	Perkins, Goodwin & Co.
Kansas:					
Topeka State Journal.....	Jan., 1908, to Jan., 1909.....	1907	2.60	\$2.29	Itasca Paper Co.
Do.....	Nov., 1906, to Jan., 1908.....	1906	2.21	1.91	John A. Davis & Co.
Do.....	Sept., 1905, to Sept., 1906.....	1905	2.25	1.93	General Paper Co.
Do.....	Aug., 1897, to Mar., 1898.....	1897	1.73	1.34	Graham Paper Co.
Massachusetts:					
Springfield Republican	July, 1905, to July, 1908.....	1905	2.00	.....	International Paper Co.
Rhode Island:					
Providence Tribune.....	Mar., 1907, to Mar., 1912.....	1907	(b)	.....	Do.
Providence Telegram.....	Apr., 1906.....	1906	1.90	.....	Pejepscot Paper Co.
Massachusetts:					
Springfield Union.....	Jan., 1908, to Jan., 1909.....	1907	2.30	1.80	J. R. Booth.
Rhode Island:					
Providence Journal.....	Jan., 1906, to Jan., 1911.....	1905	(c)	.....	International Paper Co.
North Carolina:					
Asheville Gazette-News.	Jan., 1908-9.....	1907	3.00	2.57	Antietam Paper Co.
New Hampshire:					
Manchester Union.....	Sept., 1907, to Sept., 1908.....	1906	2.00	.....	Pejepscot Paper Co.
Do.....	Sept., 1905, to Sept., 1907.....	1905	1.90	.....	Do.
New York:					
Syracuse Post-Standard.	Jan., 1908-9.....	1907	2.50	.....	H. G. Craig & Co.
Do.....	Dec., 1905-7.....	1905	1.75	1.68	St. Regis Co.
Minnesota:					
Duluth News-Tribune.	Dec., 1904-9.....	1904	(d)	.....	Perkins, Goodwin & Co.
Ohio:					
Akron Beacon-Journal.	Jan., 1908-9.....	1908	2.45	.....	Whitaker Paper Co.
Missouri:					
Sedalia Democrat.....	Aug., 1907-8.....	1907	2.63	.....	Graham Paper Co.
Ohio:					
Woman's Home Companion, The Farm and Fireside.	Jan., 1907-8.....	.....	2.43	.....	Laurentide Paper Co.
Tennessee:					
Memphis Commercial-Appel.	Jan., 1908, to Dec., 1908.....	1907	2.60	.....	Manufacturing Paper Co.
Do.....	Jan., 1907-8.....	1906	2.00	.....	Do.
Do.....	July, 1905, to Jan., 1907.....	1905	2.12	.....	Do.
Do.....	Jan., 1905-6.....	1904	2.37	.....	Do.
Do.....	Jan., 1904-5.....	1903	2.40	.....	Do.

a The first two years, \$2.10, less 14 per cent; after that price to be determined.

b First year \$2.20; market price in January for each of next two years.

c 1906, \$2.05; 1907, \$2.10; 1908, \$2.50.

d 1906 (1907, less 14 per cent), \$2.10; market price after.

e Less 3 per cent for thirty days.

f 3 per cent off for cash.

TABLE 7.—Comparative statement of prices paid at different times by the publications represented at the hearings—Continued.

Publication.	Period covered by contract.	Year in which contract was made.	Prices paid.		Source of supply
			Delivered.	At mill.	
New Jersey:					
Newark Evening News.	Jan. 1, 1906, to Dec. 31, 1906.	(a)	2.50	.....	International Paper Co.
Do.....	Jan. 1, 1907, to Dec. 31, 1907.	(a)	2.35	.....	Do.
Do.....	Oct., 1905, to Dec., 1905...	(a)	2.25	.....	Do.
Do.....	Apr., 1905, to Apr., 1906...	(a)	2.40	.....	Do.
Do.....	Apr., 1904, to Apr., 1905...	(a)	2.40	.....	Do.
Do.....	Apr., 1903, to Apr., 1904...	c1905	2.40	.....	Do.
Do.....	Apr., 1902, to Apr., 1903...	c1905	2.25	.....	Do.
Do.....	Apr., 1901, to Apr., 1902...	c1905	2.40	.....	Do.
Do.....		c1900	2.15	.....	Do.
Do.....		c1899	2.15	.....	Do.
Do.....		c1898	2.12½	.....	Wilder & Co.
Illinois:					
Chicago Record-Herald.	Jan., 1906-1910.....	1905	(d)	.....	International Paper Co.
Do.....	Jan., 1905-1909.....	1904	2.00	.....	Do.
Tennessee:					
Knoxville Sentinel....	1906.....		2.62½	.....	W. H. Parsons & Co.
Pennsylvania:					
Johnstown Democrat..	1906.....		2.55	.....	International Paper Co.

(a) No date given.

(b) Cotton waste.

(c) April.

(d) 1906, \$2; not less than \$1.90 or more than \$2.10.

(e) 2 per cent. discount for 10 days.

The lowest price shown in this statement is \$1.34 per hundredweight at the mill, or about \$1.73 delivered, paid by the Topeka (Kans.) Daily State Journal under a contract running from August, 1897, to March, 1898. The highest price shown is \$2.57 per hundredweight at the mill, or \$3, which was paid by the Asheville (N. C.) Gazette-News under a contract covering the calendar year 1908. The lowest delivered price mentioned in the course of the testimony as having been paid for news-print paper at any time was \$1.60 per hundredweight, on what is known as the production basis, equivalent to about \$1.50 on the present gross-weight basis, paid by the New York World in 1897. Mr. Hastings, of the Lynn Item, stated that he paid \$1.64½ delivered, for 100 tons of paper purchased on January 5, 1898. The prices paid by the New York Staats Zeitung from 1891 to 1908 were presented in a statement submitted to the committee by Mr. Lyman, of the International Paper Company, the maximum being \$2.90 delivered, paid in 1891, and the minimum \$1.75 delivered, from February, 1899, to August 31, 1900, and during the calendar year 1906. The evidence shows that in general the price of news-print paper reached its lowest level from 1897-1899, although as late as 1906 and 1907 the New York Staats Zeitung and the Syracuse Post-Standard obtained paper from the St. Regis Company for \$1.75 delivered.

Table 8 shows the prices of news-print paper during 1906, 1907, and 1908, as obtained from the evidence presented to the committee by a large number of publishers. The general average price per hundredweight, as computed from this testimony, was \$2.10 in 1906, \$2.28 in 1907, and \$2.54 in 1908.

[From evidence presented to Select Committee on Pulp and Paper Investigation.]

TABLE 8.—*Prices of news-print paper.*

1906.

State, city, or town, and publication or publisher reporting price.	Price of news-print paper per hundredweight.	Remarks.
Arizona:		
Tucson Daily Star.....	\$2.25	
California:		
Chico Record.....	2.90	Carload lots.
Durango Democrat.....	2.90	
Los Angeles Evening News.....	2.53	F. o. b. Los Angeles.
Redlands Review.....	3.40	F. o. b. Redlands; carload lots.
Sacramento Union.....	2.15	F. o. b. mill.
Stockton Daily Record.....	2.75	
Colorado:		
Denver News.....	1.85	Price f. o. b. mill prior to August 1, 1907.
Connecticut:		
Ansonia Sentinel.....	2.01	Under contract expiring September 1.
Bridgeport Standard.....	2.00	Up to May 1, 1907.
New London Daily Globe.....	2.00	F. o. b. New London; carload lots.
Norwich Bulletin.....	2.00	Under contract ending February 1, 1907.
Stamford Daily Advocate.....	2.10	
Georgia:		
Augusta Chronicle.....	{ 2.22½	Under contract for 1906. Quotation for delivery
	{ 2.18	price.
Illinois:		
Aurora Daily News.....	2.00	F. o. b. Chicago; small lots.
Centralia Evening Sentinel.....	2.25	
Chicago Daily Journal.....	1.95	Until June 1, 1907.
Chicago Tribune.....	a 2.00	Delivered under contract.
Chicago News and Record-Herald.....	a 2.00	Do.
Danville Commercial News.....	b 2.00	Contract for 1906 f. o. b. Danville.
Danville Democrat.....	2.35	Until July 1, 1907.
Danville Daily Press.....	2.00	
Elgin Courier.....	2.00	
Joliet Daily News.....	2.05	Do.
Joliet Herald.....	2.05	Contract for 1906.
Lincoln Daily Courier.....	2.04	
Peoria Herald-Transcript.....	1.97	Price delivered until July, 1907.
Quincy Herald.....	2.12½	Under contract ending in 1907.
Rockford Morning Star.....	2.14	
Illinois State Register (Springfield).....	2.10	Under contract f. o. b. Springfield. Freight rate about 16 cents.
Indiana:		
Evansville Journal-News.....	2.09 to 2.25	
Goshen News-Times.....	2.01	
Indianapolis, Muncie, and Terre Haute Star.....	2.05	
Marion Leader, Indianapolis Hoosier, Crawfordsville Review, and Asheville (N. C.) Citizen.....	2.00	Until April 1, 1907.
Marion News-Tribune.....	1.98	
Princeton Clarion-News.....	1.93	
Indian Territory:		
Muskogee Daily Phoenix.....	2.40	Price in December.
Iowa:		
Waterloo Courier.....	2.00	Under contract.
Kansas:		
Chautau Sun.....	2.45	F. o. b. Kansas City.
Fort Scott Tribune-Monitor.....	2.40	Under contract delivered f. o. b. Hutchinson.
Hutchinson News.....	2.52	
Newton Republican.....	1.94	Price at mill.
Parsons Sun.....	2.20	
Pittsburg Headlight.....	2.26	Until July, 1907.
Topeka Daily State Journal.....	2.25	Under contract for 1906 f. o. b. Topeka. Price at mill, \$1.93.
Wichita Daily Beacon.....	c 2.46½	
Kentucky:		
Louisville Herald.....	2.00	Until April 5, 1907.
a Less 1½ per cent.		b Less 4 per cent.
		c Delivered.

TABLE 8.—*Prices of news-print paper*—Continued.

1906—Continued.

State, city, or town, and publication or publisher reporting price.	Price of news-print paper per hundred-weight.	Remarks.
Louisiana:		
Charles S. Clark, New Orleans (for supply of Daily States and News)	\$1.92	F. o. b. New York, under year's contract ending May 1, 1907.
New Orleans Picayune.....	2.40	Delivered at wharf, New Orleans.
Shreveport Times.....	2.47½	
Maine:		
Portland Argus.....	1.90	
Portland Evening Express.....	2.00	
Maryland:		
Baltimore American.....	1.90	Under 2-year contract expiring December 31, 1907, f. o. b. Baltimore.
Massachusetts:		
Lynn Item.....	2.25	Price paid on March 9.
	2.05	Price paid from June to October.
	2.00	Price in November and December.
Pittsfield Eagle.....	2.00	Car lots, delivered.
Springfield Republican.....	2.00	Under 3-year contract expiring in 1908.
Taunton Herald-News.....	2.10	Under contract for 1906.
Michigan:		
Adrian Daily Telegram.....	1.95	Delivered, year ending August, 1906.
Kalamazoo Evening Telegraph.....	2.05	
Kalamazoo Gazette.....	1.90	
Sault Ste. Marie News.....	2.10	November 12.
Minnesota:		
Duluth News-Tribune.....	1.92½	Under 2-year contract expiring September 30, 1907, delivered; freight, 5 cents.
Duluth Evening Herald.....	1.92½	Contract expiring September 30, 1907.
Minneapolis Journal.....	1.93	Contract to November 1, 1907.
St. Paul Dispatch.....	1.93	Under contract.
Winona Republican-Herald.....	2.00	
Missouri:		
Joplin News-Herald.....	2.12	One year contract ending in July.
Kansas City (Mo.) Journal.....	1.80	F. o. b. mills.
St. Joseph Gazette.....	1.95	At mill.
St. Joseph News-Press.....	2.05	F. o. b. St. Joseph, on contract beginning June 1.
Nebraska:		
Lincoln State Journal.....	2.15	
Omaha Daily Bee.....	1.80	F. o. b. mill, until February 20, 1907.
New Hampshire:		
Manchester Union.....	1.90	Delivered, under two-year contract expiring September 1, 1907.
Manchester Mirror and American.....	2.15	
Manchester National and Canada-American.....	2.15	Delivered, under one-year contract expiring February 3, 1907.
New Jersey:		
Asbury Park Press.....	1.95	F. o. b. Asbury Park.
Newark Star.....	2.00	Until May, 1907.
Newark Evening News.....	2.25	
Paterson News.....	1.90	
New Mexico:		
Albuquerque Citizen.....	3.45	Until May, 1907.
New York:		
Albany Herald.....	2.45	Car lots f. o. b. Albany.
Alling and Corey (for supply Jamestown Morning Post).....	2.00	Under contract expiring March 2, 1907, f. o. b. Jamestown.
Crowell Publishing Co.....	1.94	Under two-year contract, f. o. b. Springfield, Ohio.
New York Morning Telegraph.....	1.95	
New York Staats-Zeitung.....	1.75	Under contract for 1906, delivered.
Syracuse Post-Standard.....	1.75	F. o. b. Syracuse, under contract.
Syracuse Journal.....	2.00	Do.
North Carolina:		
Asheville Citizen.....	2.20	F. o. b. Asheville.
Greensboro Daily Record.....	2.20	
North Dakota:		
Grand Forks Herald.....	2.22½	Delivered, under contract expiring in June, 1907.
Ohio:		
Akron Beacon-Journal.....	1.90	Under 2-year contract commencing January 1, f. o. b. sidewalk.
Columbus Dispatch.....	1.90	
East Liverpool Evening Record.....	2.00	
Marietta Journal.....	2.10	Car lots.
Marion Star.....	2.00	
Toledo Express.....	1.94	Delivered, under contract expiring May 1, 1907.

a Less 3 per cent.

b Less 4 per cent.

TABLE 8.—*Prices of news-print paper*—Continued.

1906—Continued.

State, city, or town, and publication or publisher reporting price.	Price of news-print paper per hundred-weight.	Remarks.
Oklahoma:		
Oklahoma City Oklahoman.....	\$1.90	F. o. b. under contract.
Oregon:		
Salem Capitol Journal.....	2.15	
Pennsylvania:		
Allentown Morning Call.....	1.94	
Bradford Evening Star.....	2.00	Price in October.
McKeesport Daily News.....	2.00	Contract. Expires September 1, 1907.
Philadelphia Press.....	1.90	Under contract.
Pottsville Daily Republican.....	1.90	Under contract, delivered. Freight 18 to 20 cents.
Reading Times.....	2.10	
Williamsport News.....	2.00	Under contract expiring March 1, 1907.
Rhode Island:		
Providence Tribune.....	1.90	Under 5-year contract expiring February 29, 1912. Prices fixed each year.
Providence Journal.....	2.05	Under 5-year contract expiring January 1, 1910. Prices adjusted every November.
South Dakota:		
Deadwood Pioneer Times.....	2.20	
Sioux Falls Daily Press.....	2.05	Delivered.
Tennessee:		
Memphis Commercial Appeal.....	2.12½	Under contract running from July 1, 1905, to December 31, 1906. Delivered.
Knoxville Sentinel.....	2.00	Under contract. Delivered.
Texas:		
Fort Worth Record.....	1.88	Under 2-year contract beginning July 1, f. o. b. mill.
Houston Chronicle.....	1.80 to 1.89	
San Antonio Light.....	1.90	
San Antonio Gazette.....	1.88	
Utah:		
Deseret News (Salt Lake).....	1.85	F. o. b. mill under 2-year contract beginning in February.
William Gleason, Ogden.....	3.05	Delivered.
Salt Lake Tribune.....	1.90	Price at mill until July 1, 1907. Freight \$1.05.
Vermont:		
Burlington Free Press.....	1.94	
Burlington Daily News.....	2.00	Under contract.
Montpelier Daily Journal and Vermont Weekly Watchman.....	2.30	F. o. b. Montpelier under contract expiring March 10, 1907.
Virginia:		
Virginian Pilot (Norfolk).....	2.15	F. o. b. Norfolk under 3-year contract expiring June 30, 1908.
Bristol Herald-Courier.....	2.20	Delivered. Freight, 30 cents.
Washington:		
Seattle Post-Intelligencer.....	2.50	F. o. b. Seattle until March 16, 1907.
West Virginia:		
Fairmont West Virginian.....	2.00	Until fall of 1907.
Parkersburg State Journal.....	2.00	
Wheeling Register.....	1.95	
General average price for 119 of the publications for which quotations are given.	2.10	

1907.

Arizona:		
Arizona Republican (Phoenix).....	2.20	Price f. o. b. mill. Freight rate \$1.89. Contract ending April 30, 1908.
Tucson Daily Star.....	2.60	
Arkansas:		
Hot Springs Daily News.....	2.31	Price f. o. b. mill under contract beginning December 1, 1906, and ending in spring of 1908.
Little Rock Democrat.....	1.80	Price f. o. b. mill under contract for 1907.
	2.30	Quotation price f. o. b. mill for 1908.
California:		
Chico Record.....	3.60	Carload lots.
Durango Democrat.....	3.35	
Los Angeles Evening News.....	3.05	F. o. b. Los Angeles.
Redlands Review.....	3.00	Quotation.
Stockton Daily Record.....	2.55	F. o. b. Redlands; carload lots.
Sacramento Union.....	3.40	Contract for 1907.
	2.25	F. o. b. mill; new contract made in 1907.
Canada:		
Ottawa (Ontario) Citizen.....	2.00	Under 3-year contract beginning in May, 1907.

• Less 3 per cent, thirty days.

TABLE 8.—*Prices of news-print paper*—Continued.

1907—Continued.

State, city, or town, and publication or publisher reporting price.	Price of news-print paper per hundred-weight.	Remarks.
Colorado:		
Denver News.....	\$2.22½	Price f. o. b. mill beginning August 1, 1907.
Grand Junction Daily News.....	3.30	Price paid for 1 carload in June.
Leadville Herald-Democrat.....	2.30	Contract price f. o. b. mill.
Connecticut:		
Ansonia Evening Sentinel.....	2.03	Under contract expiring September 1.
Bridgeport Standard.....	2.25	Under contract beginning with May 1.
Hartford Globe.....	1.60	Under contract ending in April, 1908.
Meriden Morning Record.....	a 2.00	Price delivered under contract ending in February, 1908.
New London Daily Globe.....	b 2.60	Quotation for 1908.
Norwich Bulletin.....	2.00	Price f. o. b. New London for carload lots in September.
New London Day.....	2.15	
Stamford Daily Advocate.....	2.00	Under contract for 1907.
Winsted Citizen.....	2.60	Quotation made for 1908.
Waterbury Republican.....	2.60	Under contract expiring in August.
District of Columbia:		
National Tribune.....	2.70	Under new contract commencing in August.
	2.00	
	2.30	Price f. o. b. press room, under contract ending March 1, 1908.
Florida:		
Tampa Tribune.....	2.30	
Georgia:		
Augusta Chronicle.....	2.25	
Columbus Enquirer Sun.....	2.30	Under contract for 1907.
Macon News.....	2.80	Quotation for 1908.
Savannah Press.....	2.30	Price delivered under contract for 1907.
Illinois:		
Aurora Daily News.....	2.20	F. o. b. Macon, under contract for 1907.
Bloomington Bulletin.....	2.50	
Chicago Daily Journal.....	c 2.10	Contract for 1907.
Chicago Abend Post.....	2.35	Until November 1.
Chicago Tribune.....	2.35	Subsequent to June 1.
Chicago News and Record Herald.....	1.87½	
Centralia Evening Sentinel.....	d 2.05	Delivered under contract.
Cairo Bulletin.....	e 2.05	Do.
Danville Commercial News.....	2.68	In car lots delivered.
Danville Democrat.....	2.09	Under contract.
Danville Daily Press.....	2.50	On April 1, 1907, f. o. b. Danville.
Decatur Herald.....	f 2.44½	Contract beginning in July, 1907, Danville, f. o. b.
Elgin Courier.....	2.57½	Beginning July 1.
Household Guest (Chicago).....	2.65	
Illinois State Register (Springfield).....	2.18	
Joliet Herald.....	2.50	Quotation.
Joliet Daily News.....	2.50	
Lincoln Daily Courier.....	2.00	F. o. b. press room.
Moline Daily Dispatch.....	2.02½	Under contract f. o. b. Springfield. Freight rate about 16 cents.
Peoria Journal.....	2.62	Quotations for 1908.
Peoria Herald-Transcript.....	2.40	Contract for 1907.
Quincy Whig.....	2.45	Beginning July 1.
Quincy Herald.....	2.35	
Rock Island Argus.....	2.02½	Until August 1.
Rockford Morning Star.....	2.46	F. o. b. Peoria.
Rockford Register-Gazette.....	2.40	Price delivered, beginning with July.
Indiana:		
Anderson Evening News and Weekly Democrat.....	1.96	Single car.
Evansville Journal-News.....	2.35	
Evansville Courier.....	2.05	
Goshen News-Times.....	2.05	
Indianapolis, Muncie, and Terre Haute Star.....	2.08½	Contract for 1907.
	2.00	
	2.50-2.60	Under contract, f. o. b. *Anderson.
	2.09	
	2.67½	Delivered under contract ending Apr. 1, 1908.
	2.65	Quotation delivered in fall of 1907.
	2.25	

a Less 3 per cent 30 days.
b Net 30 days.

c Less 3 per cent.
d Less 1½ per cent.

e Net
f Less 3 per cent cash.

TABLE 8.—Prices of news-print paper—Continued.

1907—Continued.

State, city, or town, and publication or publisher reporting price.	Price of news-print paper per hundred-weight.	Remarks.
Indiana—Continued.		
Lafayette Courier	\$2.57	Under contract.
Marion News Tribune	2.42	
Marion Leader, Indianapolis Hoosier, Crawfordsville Review, and Asheville (N. C.) Citizen.	2.25	Beginning Apr. 1.
Princeton Clarion News.	2.60	Beginning in June.
Portland Commercial Review	2.75	Under contract beginning August 1, 1907.
South Bend Tribune.	2.30	Under contract.
Indian Territory.		
Muskogee Daily Phoenix	2.82	Price in March.
	2.91	Price in April.
	3.00	Price under contract for 1 year made in 1907.
Iowa:		
Burlington Hawkeye	2.08	Until August.
Council Bluffs Leader	2.10	Under contract running until February 1, 1908.
Creston Advertiser	2.10	Under contract delivered. Freight 20 cents.
Davenport Democrat	2.00	Under contract ending in August.
Dubuque Times-Journal	2.00	Under contract expiring September 1.
Dubuque Telegraph-Herald	2.00	Do.
Des Moines Capitol	2.00	F. o. b. Des Moines.
Sioux City Tribune	2.06	Under contract.
Waterloo Courier	2.40 ^a	Do.
Waterloo Times-Tribune	2.03 ^a	
Kansas:		
Atchison Globe	2.48	Under contract, delivered.
Chanute Sun	3.15	F. o. b. Kansas City.
Coffeyville Journal	2.57	Under contract, delivered.
Fort Scott Tribune-Monitor	2.80	Do.
Hutchinson News	2.93	F. o. b. Hutchinson.
Iola Register	2.40	Under contract.
W. P. Feder, Great Bend	2.50	No contract.
Newton Republican	2.68	Price at mill.
Parsons Sun	2.81	
Pittsburg Headlight	2.53 ^a	Beginning in July.
Wichita Beacon	1.97	Until September.
Wichita Daily Beacon	3.15	Delivered.
	2.75	Quotation September 21, f. o. b. Chanute.
	2.80	Quotation September 26, f. o. b. Chanute.
	3.15	Quotation October 1, f. o. b. Kansas City.
	3.08	Quotation October 2, f. o. b. Chanute.
	3.00	Quotation October 9, f. o. b. Chanute.
		Price at mill \$2.62.
Topeka Daily State Journal	2.21	Under contract for 1907 f. o. b. Topeka. Price at mill \$1.90, less 3 per cent for cash.
Kentucky:		
Louisville Anzeiger	2.05	
Louisville Herald	2.30	Taking effect April 5, 1907.
Owensboro Messenger	2.20	F. o. b. Owensboro.
Paducah News-Democrat	2.20	Taking effect January 1, 1907.
Louisiana:		
New Orleans Picayune	2.85	Delivered at wharf in New Orleans.
Shreveport Times	2.40	Until August f. o. b. wharf.
	2.86	Gradually since January 1, 1907.
Maine:		
Bangor Commercial, Bangor	2.50	F. o. b. Bangor.
Biddeford Daily Journal	2.50	Under contract expiring May 1, 1908.
Portland Argus	2.10	
Portland Evening Express	2.00	Contract expires 1911; price adjustable December of each year.
Rockland Daily Star	2.25	F. o. b. Rockland, under contract ending December 15.
F. B. Nichols, Bath	2.25	Until summer.
Maryland:		
Baltimore American	1.90	Under 2-year contract, f. o. b. Baltimore.
Edward Randle, Baltimore	2.40	
Massachusetts:		
Boston Journal	1.90	Under contract for 1907.
Fitchburg Sentinel Printing Co	2.10	Do.
Lowell Courier-Citizen	2.25	Under contract to April, 1908.
Lynn Item	2.10	Under contract for 1907.
New Bedford Standard	1.92	F. o. b. New Bedford, under contract expiring in June.
North Adams Transcript	2.50	Quotation for 1908.
	2.10	Under contract for 1907.

^a Less 1 per cent.

TABLE 8.—Prices of news-print paper—Continued.

1907—Continued.

State, city, or town, and publication or publisher reporting price.	Price of news-print paper per hundred-weight.	Remarks.
Massachusetts—Continued.		
North Adams Herald.....	\$2.58	F. o. b. North Adams.
	2.00	Rolls, f. o. b. North Adams, odd lots.
	2.17	
Pittsfield Eagle.....	2.37 $\frac{1}{2}$	Quotation early in year f. o. b. Pittsfield.
Springfield Union.....	2.20	F. o. b. Pittsfield in lots.
Springfield Republican.....	2.00	F. o. b. Springfield.
Taunton Gazette.....	2.35	Under contract expiring in 1908.
Taunton Herald News.....	2.25	Until October 17.
Worcester Post.....	1.90	Under contract for 1907.
		Do.
Michigan:		
Adrian Daily Telegram.....	2.06	Ending August, 1907.
Detroit Daily Abend Post.....	2.10	Contract expiring July 1.
Detroit Free Press.....	1.90	Under contract.
Hancock Evening Journal.....	2.70	Under contract beginning in June.
Kalamazoo Gazette.....	2.12 $\frac{1}{2}$	January 1.
Kalamazoo Evening Telegraph.....	2.05	
Lansing State Republican.....	2.10	Contract for 1907.
Menominee Herald Leader.....	2.00	Until August.
	2.35	February 15.
Sault Ste. Marie News.....	2.40	July 3.
	2.60	September 14.
Minnesota:		
Duluth News-Tribune.....	1.92 $\frac{1}{2}$	Under two-year contract expiring September 30;
		delivered, freight, 5 cents.
Duluth Evening Herald.....	1.92 $\frac{1}{2}$	Under contract expiring September 30.
Duluth Miles Bunnell.....	1.92	
Minneapolis Journal.....	1.92	Under contract expiring November 1.
St. Paul Dispatch.....	2.51 $\frac{1}{2}$	Under contract.
Winona Republican Herald.....	2.40	First half of year.
	2.50	Beginning in summer, three months.
Mississippi:		
Jacksonville Daily News.....	2.45	Under contract.
Meridian Morning Dispatch.....	2.30	Do.
Missouri:		
Joplin News Herald.....	2.20	Contract beginning July, 1906.
	2.61	Price in March.
	1.80	F. o. b. at mills.
Kansas City (Mo.) Journal.....	2.50	Quotation for 1908.
Sedalia Democratic Sentinel.....	2.12 $\frac{1}{2}$	Under contract ending August 1.
St. Joseph Gazette.....	2.40	At mill.
St. Joseph News Press.....	2.38	F. o. b. St. Joseph, on contract beginning June 1.
St. Louis Globe-Democrat.....	2.10	Under contract.
Montana:		
Anaconda Standard.....	1.90	At mill, under contract expiring in fall.
Butte Miner.....	1.90	Under contract.
Nebraska:		
Green Island Independent.....	3.06	Price, July; no contract.
Lincoln State Journal.....	2.30	
Lincoln Daily Star.....	2.25 $\frac{1}{2}$	Delivered until August 1. Freight, 23 cents.
Omaha Daily Bee.....	2.15	F. o. b. mill, beginning February 20.
Omaha World-Herald.....	1.80	Price at Wisconsin mill.
New Hampshire:		
Manchester Union.....	1.90	Delivered under 2-year contract expiring September 1.
Manchester Mirror and American.....	2.25	
Keene Sentinel.....	2.20	Contract expiring July 1.
W. H. Pritchard, North Nashua.....	1.90	Contract for 1907.
	2.75	Quotation for 1908.
New Jersey:		
Asbury Park Press.....	2.50	F. o. b. Asbury Park.
Camden Post-Telegraph.....	2.15	
Newark Sunday Call.....	2.50	Quotations for renewal of contract expiring in
	2.60	August.
Newark Star.....	2.35	Contract for one year, beginning in May.
Elizabeth Journal.....	2.00	
New Jersey Freie Zeitung (Newark).....	2.15	Until March 1, 1907.
Paterson Guardian.....	1.90	Until spring of 1908.
Paterson News.....	2.60	
New Mexico:		
Albuquerque Morning Journal.....	2.95	F. o. b. Albuquerque, under contract for 1907.
Albuquerque Citizen.....	3.64	Beginning in May.

^a Less 2 per cent cash.

TABLE 8.—Prices of news-print paper—Continued.

1907—Continued.

State, city, or town, and publication or publisher reporting price.	Price of news-print paper per hundred-weight.	Remarks.
New York:		
Albany Argus.....	\$2.10	Under contract.
Albany Herald.....	2.75	Car lots f. o. b. Albany.
Amsterdam Evening Recorder.....	2.00	Delivered.
Binghamton Press.....	2.14	
Brooklyn Eagle.....	2.05	Under contract.
Crowell Publishing Company.....	2.50	Quotation f. o. b. Springfield, Ohio.
Elmira Advertiser.....	1.94	Under contract f. o. b. Springfield.
Gloversville Leader.....	2.00	Under contract.
Jamestown Morning Post.....	2.10	Do.
Little Falls Evening Times.....	2.10	Under contract expiring in July, f. o. b.
New York Journal of Commerce.....	2.00	Until August.
New York Staats-Zeitung.....	2.00	Until September 1.
New York Morning Telegraph.....	2.50	
Olean Evening Herald.....	1.95	Under contract ending in September.
Olean Morning Times.....	2.75	
Rochester Herald.....	2.05	Contract price.
Rome Sentinel.....	2.00	Under contract.
Syracuse Post-Sentinel.....	1.75	F. o. b. Syracuse, under contract.
Syracuse Journal.....	2.00	Do.
Syracuse Herald.....	1.80	
Troy Record.....	1.90	Under contract, f. o. b. Troy.
Vernon Brothers & Co., New York. (For Modern Stories.)	2.00	F. o. b. press room under contract expiring September 28.
North Carolina:		
Asheville Citizen.....	2.55	F. o. b. Asheville.
Asheville Gazette-News.....	2.50	Under contract.
W. C. Dowd, Charlotte.....	2.14	
Charlotte Observer.....	2.60	Under contract expiring May 1, 1908.
Greensboro Daily Record.....	2.85	
North Dakota:		
Grand Forks Evening Press.....	2.39	
Grand Forks Herald.....	2.60	Delivered under contract commencing in June.
Grand Forks Times.....	2.78	Contract.
Ohio:		
Akron Beacon-Journal.....	1.90	Under two-year contract expiring December 31, f. o. b. sidewalk.
Cincinnati Enquirer.....	2.05	Under contract.
Cleveland, Wachter and Anselger.....	2.00	Contract price fixed yearly.
Columbus Dispatch.....	2.00	
East Liverpool Evening Record.....	2.00	Year ending June 30, 1907.
Mansfield News.....	2.18	Contract.
Marietta Journal.....	2.75	Car lots.
Marion Star.....	2.65	
Sandusky Register.....	1.9885	Contract to January, 1908.
Toledo Express.....	2.424	Delivered. Contract commencing May 1.
Youngstown Telegram.....	1.90	
Zanesville Times-Recorder.....	1.99	Under 5 years.
Oklahoma:		
Muskogee Times-Democrat.....	2.40	Contract expiring in November.
Oklahoma City Oklahoman.....	2.09	F. o. b. mill, under contract beginning January 31.
Pennsylvania:		
Allentown Item.....	2.60	
Allentown Morning Call.....	2.40	Contract made in May.
Altoona Tribune.....	2.25	Under contract expiring April 1, 1908.
Bethlehem Times.....	2.10	Under contract.
Bradford Era.....	2.20	Beginning in September, 1906.
Bradford Evening Star.....	2.75	Price in October.
Easton Free Press.....	2.10	Under contract f. o. b. Easton.
Gitt and Goessy, York.....	2.15	Under contract expiring in August.
Harrisburg Patriot.....	1.95	Under tonnage contract expiring about December 1.
Harrisburg Telegraph.....	1.95	Under contract.
Harrisburg Star-Independent.....	2.20	Do.
Johnstown Democrat.....	2.00	Do.
Johnstown Tribune.....	2.10	Under contract for 1907.
Lancaster Examiner.....	2.00	F. o. b. Lancaster, under contract.
McKeesport Daily News.....	2.00	Under contract expiring September 1.
Oil City Derrick.....	2.25-2.50	No contract.
Philadelphia Press.....	2.00	Under contract.
Philadelphia Inquirer.....	1.90	Do.
Pittsburg Leader.....	1.90	Do.
Pottsville Daily Republican.....	2.15	Under contract, delivered. Freight, 18 to 20 cents.
Reading Times.....	2.65	

a Less 4 per cent.

b Less 3 per cent.

TABLE 8.—*Prices of news-print paper*—Continued.

1906—Continued.

State, city, or town, and publication or publisher reporting price.	Price of news-print paper per hundred-weight.	Remarks.
Pennsylvania—Continued.		
Scranton Tribune.....	¢2.20	Under contract expiring February 1, 1908.
Wilkesbarre Times.....	1.95	Under contract expiring July 31.
Williamsport News.....	2.27½	Contract beginning March 1.
Williamsport Sun.....	2.05	Under contract expiring in April.
Williamsport Gazette-Bulletin.....	2.60	Quotation in September.
	1.92	Until July, 1907.
Texas:		
Denison Herald.....	2.668	Under contract expiring in July.
El Paso Daily Times.....	2.65	
Fort Worth Telegram.....	1.90	Under contract ending January 1, 1908, f. o. b. mill.
Fort Worth Record.....	1.88	Contract for two years expiring July 1, f. o. b. mill.
Galveston Tribune.....	1.90	F. o. b. New England mill under contract.
Houston Post.....	1.88	F. o. b. mill.
Houston Chronicle.....	2.15	Beginning in February.
San Antonio Gazette.....	2.27	
San Antonio Light.....	1.88	At mill, under contract expiring in December.
Utah:		
Deseret News (Salt Lake).....	1.85	F. o. b. mill, under 2-year contract expiring February, 1908.
Salt Lake Tribune.....	2.15	Price at mill under contract beginning July 1. Freight, 50 cents.
Salt Lake Herald.....	2.15	F. o. b. New York mill. Freight \$1.05.
William Glassman, Ogden.....	3.05	Delivered.
Vermont:		
Burlington Free Press.....	2.09	
Burlington Daily News.....	2.15	Under contract for 1907.
Deerfield Valley Times (Wilmington).....	¢2.60	F. o. b. mill, under 1-year contract expiring January 15, 1908.
St. Albans Messenger.....	2.35	Under contract expiring in spring of 1908.
Virginia:		
Bristol Herald-Courier.....	2.14	Beginning December 1, 1906.
Newport News Daily Press.....	2.30	Delivered under contract for 1907.
Norfolk Ledger Dispatch.....	2.10	Under contract.
Richmond News Leader.....	2.10	
Roanoke Evening World.....	2.15	Do.
Virginia Pilot (Norfolk).....	2.15	F. o. b. Norfolk, under 3-year contract expiring June 30, 1908.
West Virginia:		
Clarksburg Daily Telegram.....	2.25	
Fairmont West Virginian.....	2.60	Shipment in fall of 1907.
Parkersburg State Journal.....	2.42	
Wheeling News.....	2.00	} Quotation for 1905.
Wheeling Register.....	2.50	
Washington:	2.05	
Seattle Post-Intelligence.....	3.20	F. o. b. Seattle, beginning March 16.
Wisconsin:		
Eau Claire Leader.....	2.00	F. o. b. Eau Claire. Freight, 21½ cents.
Janesville Gazette.....	2.00	Delivered under contract.
La Crosse Leader-Press.....	2.60	F. o. b. La Crosse until August 1.
La Crosse Chronicle.....	2.57½	F. o. b. La Crosse, under contract for year ending June, 1908.
Madison State Journal.....	2.05	
Milwaukee Journal.....	1.90	F. o. b. Milwaukee, under contract expiring February 1, 1908.
Oshkosh Daily Northwestern.....	2.25	
Racine Journal.....	2.15	Delivered until September 1.
Wyoming:		
Cheyenne Tribune.....	2.10	At mill, under contract for 1907.
Rhode Island:		
Newport Daily News.....	2.40	Under contract for calendar year.
Providence Tribune.....	2.20	Under 5-year contract expiring February 29, 1912.
Providence Journal.....	2.10	Under 5-year contract expiring January 1, 1910. Price adjusted every November.
Providence News Publishing Co.....	2.00	Contract.
South Carolina:		
J. C. Hemphill, Charleston.....	2.15	
Columbia, The State.....	2.20	Delivered under contract expiring June 30. Freight, 38 cents.
South Dakota:		
Deadwood Pioneer Times.....	2.90	
Sioux Falls Daily Press.....	2.59	Delivered.

¢ Less than 2 per cent.

TABLE 8.—Prices of news-print paper—Continued.

1908—Continued.

State, city, or town, and publication or publisher reporting price.	Price of news-print paper per hundred-weight.	Remarks.
Tennessee:		
Chattanooga News.....	\$2.05	Contract canceled in April, f. o. b. Chattanooga under short-time contract.
	2.50	
	2.60	
Knoxville Sentinel.....	2.15	Under contract, delivered.
Memphis Commercial-Appeal.....	2.00	Delivered under contract.
Nashville American.....	2.12½	Until February 15, 1908.
General average price for 288 of the publications for which quotations are given.	2.28	

1908.

Arizona:		
Arizona Republican (Phoenix).....	a \$2.20	Price f. o. b. mill under contract beginning May 1, 1908; freight, \$1.80.
State Con. Publishing Co. (Tucson).....	2.60	Soft fold.
	2.45	Roll.
Arkansas:		
Hot Springs Daily News.....	2.57½	Price f. o. b. mill quoted in spring of 1908.
Little Rock Gazette.....	2.62	Price delivered under contract ending Jan. 1, 1909; about \$2.21 at mill.
California:		
Eureka Herald.....	3.60	Under contract.
Canada:		
Ottawa (Ontario) Citizen.....	2.00	Under 3-year contract beginning in May, 1907.
Colorado:		
Leadville Herald-Democrat.....	2.50	Contract price f. o. b. mill for 1908.
Connecticut:		
Ansonia Sentinel.....	2.50	Under contract expiring Dec. 1.
Bridgeport Standard.....	2.50	Under contract beginning May 1.
Hartford Evening Post.....	2.25	Under contract ending in December; quotation for 1908.
Hartford Courant.....	2.60	Under contract beginning in April.
Meriden Morning Record.....	b 2.60	Price f. o. b. Meriden under contract beginning Feb. 1.
New London Day.....	2.55	Under contract for 1908.
Waterbury Republican.....	2.37½	Under contract expiring in August.
Winsted Citizen.....	2.70	Under contract commencing in August, 1907.
Florida:		
Tampa Tribune.....	3.00	Under contract beginning January 1.
Tampa Times.....	2.80	Under contract for one year beginning August 1, 1907.
Georgia:		
Augusta Chronicle.....	2.60	Under contract expiring in December, price delivered; freight rate, 34 cents.
Columbus Enquirer Sun.....	2.85	Price delivered under contract for 1908.
Macon News.....	2.85	F. o. b. Macon, under contract for 1908.
Savannah Press.....	2.60	
Illinois:		
Bloomington Bulletin.....	2.50	Under contract expiring November 1.
Cairo Bulletin.....	2.64	
Chicago News and Record Herald.....	2.10	Delivered under contract.
Chicago Tribune.....	2.20	Do.
Chicago Abend Post.....	2.42½	Under contract expiring December 1.
Danville Commercial News.....	2.44½	Price f. o. b. Danville, under contract expiring July 1.
Decatur Herald-Dispatch.....	2.40	Delivered; price on open market.
Galena Gazette.....	2.70	Delivered under contract expiring in July.
Illinois State Register.....	2.40	F. o. b. Springfield. On open market; freight rate about 16 cents.
Moline Daily Dispatch.....	2.52½	Beginning August 1, 1907.
Quincy Whig.....	2.58	
Rock Island Argus.....	2.48	Under contract expiring in August.
Rockford Register Gazette.....	2.41	Contract for 1908.
Indiana:		
Evansville Journal-News.....	2.60	Delivered under contract expiring in August.
Evansville Courier.....	2.52	Delivered, beginning March 1.
Lafayette Courier.....	2.40	Open market.
Portland Commercial Review.....	2.05	Under contract for year ending August 1, 1908.
South Bend Tribune.....	2.45	Under contract.

a Net.

b Net cash 30 days.

TABLE 8.—Prices of news-print paper—Continued.

1908—Continued.

State, city, or town, and publication or publisher reporting price.	Price of news-print paper per hundred-weight.	Remarks.
Iowa:		
Burlington Hawkeye.....	\$2.56	Under contract expiring in December.
Council Bluffs Leader.....	2.50	Under contract expiring February 1, 1909.
Creston Advertiser.....	2.75	Under contract expiring September 1; delivered; freight 20 cents.
Davenport Democrat.....	2.50	Under contract ending in August.
Des Moines Capitol.....	2.50	Under contract expiring February 1, 1909.
Dubuque Times-Journal.....	2.50	Under contract expiring September 1.
Dubuque Telegraph Herald.....	2.49	Do.
Sioux City Tribune.....	2.50	Under contract expiring in August.
Waterloo Times Tribune.....	2.47½	Under contract ending in October.
Kansas:		
Atchison Globe.....	2.32	Delivered under contract.
Clay Center Republican.....	2.85	Quotation in May.
Coffeyville Journal.....	2.57	Half-car lot delivered.
W. P. Feder, Great Bend.....	3.15	No contract.
Iola Register.....	2.62	Carload lot bought in April.
Geo. W. Marble, Fort Scott.....	2.32	Under contract expiring in September.
Topeka Daily State Journal.....	2.35	Net Wisconsin mill quotation.
	2.60	Under contract for 1909 f. o. b. Topeka, price at mill \$2.29.
Wichita Beacon.....	2.42	
Kentucky:		
Desha Breckenridge, Lexington.....	2.40	Under contract to Jan. 1, 1910.
Louisville Evening Post.....	2.20	Do.
Louisville Herald.....	2.42	F. o. b. Herald; contract.
Louisville Anzeiger.....	2.75	No contract.
Owensboro Messenger.....	2.62½	Under contract for 1908.
Paducah News-Democrat.....	2.62½	
Maine:		
Bangor Commercial.....	2.50	F. o. b. Bangor.
Biddeford Daily Journal.....	2.60	Quotation in May.
F. B. Nichols, Bath.....	2.75	Under 2-year contract beginning in summer of 1907.
Portland Evening Express.....	2.50	Contract expires 1911; price adjustable December of each year.
Portland Argus.....	2.40	
Maryland:		
Baltimore American.....	2.50	
Edward Randle, Baltimore.....	2.90	Under contract for 1908.
Massachusetts:		
Boston Journal.....	2.50	Do.
Fitchburg Sentinel.....	2.75	Do.
Lowell Courier-Citizen.....	2.60	Under contract beginning Apr. 1.
Lynn Item.....	2.50	Under contract for 1908.
New Bedford Standard.....	2.37½	Under contract expiring in June.
North Adams Transcript.....	2.50	Under contract to Jan. 31, 1909.
Pittsfield Eagle.....	2.20	Under contract for 1908.
Springfield Union.....	2.30	F. o. b. Springfield; under contract for 1908. Price \$1.80 at Canadian mill.
Springfield Republican.....	2.00	Under contract expiring July 1.
Taunton Herald-News.....	2.41	Quotation for new contract.
Taunton Gazette.....	2.60	Under contract for 1908.
Worcester Post.....	2.40	From October 17, 1907.
Michigan:		
Adrian Daily Telegram.....	2.41	Under contract expiring December 1.
Benton Harbor News-Palladium.....	2.60	Delivered under contract expiring in November.
Detroit Daily Abend-Post.....	2.35	Contract expiring July 1.
Detroit Free Press.....	2.40	Under contract.
Lansing State Republican.....	2.60	Contract for 1908.
Sault Ste. Marie Evening News.....	2.60	Do.
Minnesota:		
Duluth Evening Herald.....	2.38	Under contract expiring October 1, f. o. b. Duluth.
Duluth News-Tribune.....	2.38	Delivered under contract expiring September 1.
Minneapolis Journal.....	2.45	Under contract beginning November 1, 1907.
St. Paul Volkzeitung.....	2.07½	Under contract expiring June 10.
Winona Independent.....	2.35	Quotation (delivered).
Winona Republican-Herald.....	2.40	Under contract expiring October 1.
Mississippi:		
Jacksonville Daily News.....	2.89	Contract expiring February 1, 1909.
Meridian Morning Dispatch.....	2.70	
Missouri:		
Joplin News-Herald.....	2.20	Contract ending in July.
Joplin Globe.....	2.58	Renewal price.
	2.27½	Contract f. o. b. mill.

TABLE 8.—*Prices of news-print paper*—Continued.
1908—Continued.

State, city, or town, and publication or publisher reporting price.	Price of news-print paper per hundred-weight.	Remarks.
Missouri—Continued.		
Kansas City Journal.....	\$2.40	Contract beginning September, 1907.
Sedalia Democrat-Sentinel.....	2.63 ^a	Under contract expiring August 1.
St. Joseph News-Press.....	2.80	Quotation for new contract.
St. Louis Globe-Democrat.....	2.45	F. o. b. St. Joseph on contract beginning June 1.
	2.10	Under contract.
Montana:		
Anaconda Standard.....	2.36	At mill Missouri River, freight rate 95 cents.
Butte Miner.....	2.20	
Great Falls Tribune.....	2.27 ^a	Contract beginning October 1.
Nebraska:		
Grand Island Independent.....	3.19	Price in February; no contract.
Lincoln Daily Star.....	2.40	F. o. b. mill, under contract, expiring August 1; freight, 23 cents.
Omaha World Herald.....	2.30	Price at mill.
New Hampshire:		
Keene Sentinel.....	2.50	Contract expiring July 1.
Manchester Mirror and American.....	2.65	
Manchester Union.....	2.00	Contract expiring in August.
W. H. Prichard, North Nashua.....	2.45	Quotation for renewal.
	2.80	Contract for 1905.
New Jersey:		
Camden Post-Telegraph.....	2.65	
Elizabeth Journal.....	2.60	
Newark Star.....	2.50	
New Jersey Freie Zeitung (Newark).....	2.60	Contract beginning March 1.
Paterson Guardian.....	2.50	Contract beginning in spring.
New Mexico:		
Albuquerque Morning Journal.....	3.30	F. o. b. Albuquerque, under contract for 1908.
New York:		
Albany Herald.....	2.87	Car lots, f. o. b. Albany.
Albany Argus.....	2.60	Under contract.
Amsterdam Evening Recorder.....	2.60	Delivered.
Binghamton Press.....	2.60	Contract for 1908.
Brooklyn Eagle.....	2.50	Under contract for 1908.
Crowell Publishing Co.....	2.43	Canadian paper, under contract, f. o. b. Springfield, Ohio.
Elmira Advertiser.....	2.65	Under contract.
Gloversville Leader.....	2.60	Contract for 1908.
Jamestown Morning Post.....	2.45	Under contract beginning in July, 1907, f. o. b. Jamestown.
Kingston Freeman.....	2.50	Beginning in September, 1907.
Little Falls Evening Times.....	2.50	Beginning in August, 1907.
New York Staats Zeitung.....	2.45	
New York Journal of Commerce.....	2.47 ^a	Beginning September 1, 1907.
Olean Evening Herald.....	2.50	Under contract beginning in September, 1907.
Olean Morning Times.....	3.00	
Rome Sentinel.....	2.60	Under contract.
Syracuse Post Standard.....	2.50	F. o. b. Syracuse under contract.
Syracuse Herald.....	2.55	Under contract.
Syracuse Journal.....	2.30	Quotation from Canadian mill, f. o. b. Syracuse.
Troy Record.....	2.40 ^a	F. o. b. Syracuse, under contract for 1908.
	2.50	Under contract, f. o. b. Troy.
North Carolina:		
Asheville Gazette-News.....	3.00	Under contract for 1908.
Asheville Citizen.....	2.90	F. o. b. Asheville.
Charlotte Observer.....	2.57 ^a	Under contract beginning May 1.
W. C. Dowd, Charlotte.....	2.90	
North Dakota:		
Grand Forks Evening Press.....	2.89	Delivered under contract for 1908.
Grand Forks Herald.....	2.54 ^b	Under contract, delivered.
Grand Forks Times.....	2.58	Under contract expiring in August.
	2.51	Quotation.
Ohio:		
Akron Beacon-Journal.....	2.45 ^b	Under contract.
H. D. Campbell, Lima.....	2.45	Quotation delivered.
Cincinnati Enquirer.....	2.50	Under contract.
Cleveland Wacht and Anzeiger.....	2.60	Under 5 year contract expiring Jan. 1, 1910; price fixed yearly.
East Liverpool Evening Record.....	2.50	Beginning July, 1907.
Mansfield News.....	2.55	Contract expiring in August.
Toledo Express.....	2.42 ^a	Contract expiring in May, 1908.
Sandusky Register.....	1.99	Contract.
Youngstown Telegram.....	2.35	Delivered, contract expiring July 1.
Zanesville Times-Recorder.....	2.60	

^a Less 2 per cent.^b Less 3 per cent.

TABLE 8.—Prices of news-print paper—Continued.

1908—Continued.

State, city, or town, and publication or publisher reporting price.	Price of news-print paper per hundred-weight.	Remarks.
Oklahoma:		
Muskogee Times-Democrat.....	\$3.03	Under contract.
Pennsylvania:		
Allentown Morning Call.....	2.50	Under contract beginning May 15.
Altoona Tribune.....	2.50	New contract.
Albert J. Barr, Pittsburg.....	2.20	Less 3 per cent 30 days.
Bethlehem Times.....	2.60	Under 5-year contract expiring in 1910.
P. C. Boyle, Oil City.....	2.56	Under contract for 1908.
Bradford Era.....	2.50	Do.
Easton Free Press.....	2.95	Quotation in April.
Gitt & Geesy, York.....	2.65	Beginning in September, 1907.
Harrisburg Patriot.....	2.60	F. o. b. Easton, under contract for 1908.
Harrisburg Star-Independent.....	2.50	Beginning in August, 1907.
Harrisburg Telegraph.....	2.60	Under contract commencing December, 1907.
Johnstown Democrat.....	2.50	Under contract for 1908.
Johnstown Tribune.....	2.55	Do.
Lancaster Examiner.....	2.60	Do.
McKeesport Daily News.....	2.55	F. o. b. Glens Falls, freight paid; contract for 1908.
Philadelphia Inquirer.....	2.50	Under contract commencing Sept. 1, 1907.
Pittsburg Leader.....	2.20	Under contract.
Pottsville Daily Republican.....	2.65	Do.
Scranton Tribune.....	2.65	Under contract, delivered, freight 18 to 20 cents.
Williamsport Gazette-Bulletin.....	2.35	Under contract for 1908.
Wilkesbarre Times.....	2.50	Under contract made in July, 1907.
Rhode Island:		
Newport Daily News.....	2.75	Under contract beginning Aug. 1, 1907.
Providence Tribune.....	2.50	Under contract for calendar year.
Do.....	2.50	Under 5-year contract expiring February 29, 1912, changing prices each year.
Providence News Democrat.....	2.75	Under 5-year contract expiring January 1, 1910 prices adjustable every November.
South Carolina:		
Columbia State.....	2.70	Contract.
J. C. Hemphill, Charleston.....	2.70	Delivered under contract beginning July 1, 1907; freight 38 cents.
South Dakota:		
Sioux Falls Daily Press.....	2.48 to 2.55	Under contract for 1908.
Watertown Public Opinion.....	2.90	Delivered.
Tennessee:		
Chattanooga News.....	2.77½	No contract; price per ream.
Knoxville Sentinel.....	2.62½	Under short-time contract.
Nashville American.....	2.62½	Delivered under contract for 1908.
Texas:		
Dennison Herald.....	2.852	Under 1-year contract expiring February 15, 1909.
El Paso Daily Times.....	3.20	Delivered under contract expiring in July; freight 64 cents.
Fort Worth Record.....	2.35	Under contract expiring November 1.
Do.....	2.25	Six months' contract beginning July 1, f. o. b. mill.
M. E. Foster, Houston.....	1.80	Quotation for a year's contract.
Do.....	1.80	Under contract expiring July 1, f. o. b. mill.
Fort Worth Telegram.....	1.95	F. o. b. Canadian mill, under contract expiring July 1, equal to \$2.10 New York mill.
Galveston Tribune.....	2.30	Quotation for renewal at Canadian mill.
Houston Post.....	2.42	Quotation at American mill.
San Antonio Light.....	2.37½	Under contract for 1908; price at mill.
Waco Times-Herald.....	3.20	F. o. b. New England mill under contract beginning in April.
Utah:		
Deseret News (Salt Lake).....	2.25	F. o. b. mill, under contract.
William Glassman Ogden.....	3.20	At mill under contract expiring in December.
Salt Lake Herald.....	2.05	Under contract expiring Nov. 1.
Salt Lake Tribune.....	2.65	Renewal quotation.
Vermont:		
Burlington Free Press.....	2.60	F. o. b. mill under contract beginning June 1, freight \$1.05.
Burlington Daily News.....	2.70	Delivered price on new contract.
St. Albans Messenger.....	2.60	F. o. b. mill; new contract price made in May.
		F. o. b. Salt Lake, under 2-year contract beginning July 1, 1907; mill price, \$2.15.

a Less 3 per cent.

TABLE 8.—*Prices of news-print paper*—Continued.

1908—Continued.

State, city, or town, and publication or publisher reporting price.	Price of news-print paper per hundred-weight.	Remarks.
Virginia:		
Bristol Herald-Courier.....	\$2.71	September 1, 1907, freight, 30 cents.
Newport News Daily Press.....	2.85	Quotation for July delivery.
Norfolk Ledger-Dispatch.....	2.70	Delivered under contract for 1908.
Richmond News-Leader.....	2.60	Under contract for 1908.
Roanoke Evening World.....	2.50	
Virginia Pilot (Norfolk).....	2.80	Under contract for 1908.
	2.15	F. o. b. Norfolk, under 3-year contract expiring June 30.
Washington:		
Grays Harbor Washingtonian.....	3.20	
West Virginia:		
Clarksburg Daily Telegram.....	3.10	
Parkersburg State Journal.....	2.72	
	2.51	Under contract for part of 1908.
Wheeling Register.....	2.38	Quotations.
	2.42	Purchase on open market.
Wisconsin:		
Eau Claire Leader.....	2.40	Under contract expiring in August.
Janesville Gazette.....	2.55	Under contract expiring Oct. 1.
La Crosse Chronicle.....	2.57	Under contract for year ending July, 1909, f. o. b. La Crosse.
Madison State Journal.....	2.55	
Milwaukee Journal.....	2.30	Under contract f. o. b. Milwaukee.
Oshkosh Daily Northwestern.....	2.40	Under contract beginning in February.
Racine Journal.....	2.50	Under contract expiring Sept. 1; price at mill.
Wyoming:		
Cheyenne Tribune.....	2.55	At mill under contract beginning Jan. 1.
General average price for 215 of the publications for which quotations are given.	2.54	

The following table, presenting statistics relative to prices of paper, collected from 611 daily newspapers, classified according to circulation and distributed by States, lends interest to the average prices of paper already presented.

not having any discrimination against it could pay in the neighborhood of \$5 a ton for stalks, and that where certain kinds of corn are grown, which are very largely grown, Mr. Hartley tells me, that the farmers could part with it at \$5 a ton, and would do so, if not all of them, a sufficient number, in a 75-mile radius, to run a small mill. Roughly, that is my present opinion, and you can see I have given you the data on which it is based. You see how incomplete it is. We have really only analyzed a single corn, and we had to start this under unfavorable conditions as to season of the year.

The CHAIRMAN. The mill, if you could locate it at all, would necessarily have to be a small mill in a district where they grow corn very extensively, and necessarily located close to a coal mine, I take it. You would have to be close to a coal mine, would you not?

Mr. COBB. You would have to have cheap power, of course.

The CHAIRMAN. You would have to have cheap coal, would you not? I am not talking about cheap power.

Mr. COBB. That is the source of power.

The CHAIRMAN. Oh, no; this is a soda process. There is no soda process, as I understand it—let us see what your understanding is—that can live long in paper-pulp making unless you can recover the soda?

Mr. COBB. Yes, that is true; you have to have heat.

The CHAIRMAN. And the recovery of the soda requires an enormous amount of fuel?

Mr. COBB. Yes. Of course, thus far we have not made any experiments such as have been rather crudely outlined and thrown into the future, simply because this seemed to be the thing to go at first. We may have made a mistake in taking this thing first, but we used our best judgment. There is a proposition of compressing the fibers together in such a way that they can be ground.

The CHAIRMAN. What do you mean by grinding?

Mr. COBB. Just as you grind wood. It is conceivable, of course, that by forcing stalks of some crop—I am not speaking of corn now, but anything of the kind—through an aperture or a compressor that can be worked at right angle to the axis of it, at the same time putting on periodically a pressure at the back, like the pressure that is put onto a log of wood, you could compress some of this matter so as to grind it. That is conceivable. I do not know that anybody has ever tried it.

The CHAIRMAN. I am not sure whether it is conceivable or not. You would have to press it with the stalk before cutting it up, of course.

Mr. COBB. If you will just take a stalk of maize, Mr. Mann, and a grindstone, and wind it with string to keep it from splitting, and press it against the grindstone, you will see that it can be ground off. Doing that under pressure, it would be all the more feasible, it seems to me.

The CHAIRMAN. This pithy matter would make too crackly a paper for news paper?

Mr. COBB. It is out of the question for anything to be printed on, of course. The only use I can see for that is something that would come in competition with strawboard, and possibly in certain ways with celluloid.

ally accumulating evidence from all the sources we can think of as to the distribution of plants that I mentioned earlier; that is, this wild salt marsh rush, so-called, and saw grass, and canebrake, and so on. It might interest you to see this map of the canebrakes which was prepared by Doctor Merriam's bureau. He had charge of the Biological Survey, and while they do not attempt to estimate the acreage of canebrakes, they say that that yellow coloration there gives an idea.

The CHAIRMAN. In other words, it is common all over the South, east of the Mississippi River?

Mr. COBB. Yes.

The CHAIRMAN. Even west of the Mississippi River?

Mr. COBB. Yes.

The CHAIRMAN. In the bayous and low ground?

Mr. COBB. Yes; there is no question about that being convertible into paper. I have samples of the paper here, and, as I said before, prominent technologists in India, of world-wide reputation, have come to the conclusion that paper can be made from bamboo.

The CHAIRMAN. Is it not a fact that these canebrakes are very expensive to get at? You can not get it out without boats, and in many places you can not use boats.

Mr. COBB. What naturally would be expected would be that a mill should be located there. It is not to be supposed that that stuff is to be carted up north and made into paper. That is out of the question. The mill would have to be located where the material is. The mill would naturally have to be located on the river bank, and this stuff would have to be brought in boats down the rivers or the water courses; and looked at in that light, it is in some places accessible matter.

The CHAIRMAN. Have you taken into consideration the fact that a pulp mill or a sulphite mill is a rather expensive proposition, or a soda mill?

Mr. COBB. It is something that requires several hundred thousand dollars to start a decent plant; there is no question about that.

The CHAIRMAN. You would have to have enough territory with material tributary to the mill to last for a number of years?

Mr. COBB. Yes; that is taken into consideration in the case of every one of these wild crops. We have taken those of which there was not only a quantity, but which we knew would reproduce if cut. The cane is one of those. That paper is made by Mr. Little, of Boston, who has also a technological laboratory. That paper is made of cane from the canebrakes. His opinion is there, and it coincides entirely with that of these Indian experts.

Here is a report of the manufacture of paper from the salt marsh rush. These analyses were made at a well-known English laboratory from material sent by my colleague, Mr. Dewey. We sent over several hundred weight of this rush. It is the kind of "grass" you go out and shoot ducks in on the coast. The reports are favorable on that for certain purposes, especially as a fiber that might be mixed with ground wood, for instance, in making news paper. I will say in this connection that that stuff had been previously tried, and I think this shows to some extent the advisability of going at this matter in the way we have. That "grass" or rush, rather, has been tried by a mill in South Carolina, and they reported to us with regard to their

trial. They said they could get any amount of this stuff at \$3 a ton, but that when they tried to convert it into paper it gave a pulp that was too mushy. Note that word "mushy." That is exactly the effect these pith cells have on pulp. Any paper maker would say, if you took that unscreened pulp from cornstalks, "Too mushy." For that reason I was very desirous, as soon as this process for separating out proved successful on corn, to see whether it would prove successful on rush, and in consequence we had it tried on tule grass, and the process was equally successful.

The CHAIRMAN. The tule grass is about the same as the cat-tail?

Mr. COBB. No; it is not. Mr. Mann, it is more like this salt-marsh rush, really. It does not have a wide blade like the cat-tail; it is narrower and roundish. If you have ever seen any of the bottled beer that comes from the Pacific coast, the bottles are always done up in tule grass. It grows in great quantities on the Pacific coast rivers and is distributed all through the east and north in swamps. I think that a line of experiment, either public or private, should be kept up in connection with this separation. I do not believe that this process we have tried is the only way. I think it is extremely likely that some modification of this or some other process can be obtained by which the pith cells can be separated very cheaply. This is the first time it has been done by a separate machine. You can make a sort of a separation with a machine that is used in the usual paper factories.

The CHAIRMAN. This report is the report as to the salt-marsh grass.

Mr. COBB. I think that has already been made public. There would be no objection to using that. I would be glad to send you a copy of it.

The CHAIRMAN. This is an official report.

Mr. COBB. The form of it shows it is made to be published.

The CHAIRMAN. It is an official report. Whether it has been published or not would not make any difference to us.

Mr. COBB. We did not pay for that, you know. In fact we have made this money go about as far as we could, I think.

The CHAIRMAN. This sort of an experiment is a very reasonable and proper use of the money, though I do not quite understand why you have to send it abroad.

Mr. COBB. Naturally we would have turned that over to the Forest Service laboratory.

The CHAIRMAN. That would have been a great mistake, if you had.

Mr. COBB. But we took it up before we made the arrangement with the Forest Service at all.

The CHAIRMAN. If you can send samples of different plants to paper mills which have laboratories for them to experiment with and report to you, why is not that the most satisfactory way of doing it?

Mr. COBB. It is, provided they have the proper facilities; but I find that, while they have the very best facilities for ascertaining the cost commercially of the different articles which they habitually use, outside of that range their fund of information is very small.

The CHAIRMAN. There are only a few that would have them, probably.

Mr. COBB. Very few indeed, I assure you. Experimental work is a very expensive thing. No matter how you try to save, if you get at

results you have to spend money, and these people are simply making money, and they do not divert very much of it to experiment work. You can not blame them. Perhaps when they started they did experiment, but once having started their mill they do not expend large sums of money in experiments, and none of them maintain experts of a very wide character of training. They are mostly men who have been brought up in the paper industry. It surprised me to find that very few of them employed graduates of our institutes of technology.

The CHAIRMAN. I think you will find that one of the results of this investigation will be that several of the pulp and paper mills will hereafter have a good laboratory with a first-class chemist at the head of it.

Mr. COBB. That will be a very good result.

Mr. Cobb here presented the following documents to be printed in the record:

ANALYTICAL AND TECHNICAL LABORATORIES,
Aynsome, Grange-Over-Sands, Lancashire, November 19, 1908.

Mr. LYSTER H. DEWEY,
*Bureau of Plant Industry,
United States Department of Agriculture, Washington, D. C.*

DEAR SIR: I have much pleasure in sending you with this letter my report on the salt marsh rush, samples of which you sent me some little time ago, and under separate cover I am sending you five samples of paper made from this grass. I regret very much that I have been so long in sending this forward, but I have had so very much to do in other directions that I have not been able to devote the necessary time to it.

The other smple, namely, fresh-water cord grass, I hope to have ready in December, and will then send you my report, together with specimens of paper.

If you at any time come across any other fibers which might be of use for paper-making purposes, I shall be glad if you will be kind enough to forward me samples for investigation. I wish very much to experiment with pineapple fiber (*Ananassa satiba*) and also with wild pineapple fiber (*Bromelia sylvestris*). Do you consider these to be of any use?

Should your department at any time require any investigations undertaken in connection with fibers, other than from a paper-making point of view, I shall be pleased to hear from you and cooperate with you.

Trusting that the report I am sending you will be of interest, I am, dear sir,

Yours, faithfully,

J. STEWART REMINGTON.

AMERICAN SALT MARSH RUSH (*JUNCUS ROEMERIAMUS*).

[By J. Stewart Remington, Douglas Dowack, and Bedford Dixon.]

This grass belongs to the natural order Cyperaceae. It is known in different localities under various names, such as "Fox grass," "White rush," "Marsh grass," "Salt grass," "Sea-salt grass," "Salt marsh grass," and "Rush marsh grass." It is a reed-like grass, from 1 to 4 feet in height, with 2 or 4 slender, erect, widely springing spikes. It is a common grass on salt marshes, ranging from the State of Maine southwards to Florida and along the Gulf Coast to Texas. It is also found growing in large quantities at many points along the coast from Massachusetts to Florida.

A sample of this grass was forwarded for investigation to the Aynsome Technical Laboratories by the director of the Fiber Division of the United States Department of Agriculture some few months ago.

In the following account of the work which has been done in connection with this grass will be found the results of the various trials made and methods employed in the production of paper from the pulp obtained.

The sample consisted of about one hundredweight of a stiff, dark-brown colored grass, closely resembling the rushes that thrive in the marshy districts of this country, being smooth, cylindrical in shape, varying in diameter from one-eighth to one-sixteenth inch, and having an average length of about 3 feet.

TABLE 9.—Number of daily newspapers reporting average price paid for paper in spring of 1908, average price including and excluding freight, and average price for selected years, also preference as to removal of tariff on wood pulp and news-print paper, papers grouped according to circulation, by States—Continued.

State and circulation.	Number of papers and average price per hundred weight, spring of 1908.				Freight.		How shipped.	Number reporting and average price paid per hundred weight January 1.												Removal of tariff.									
	Total.		Rolls.		Sheets.	Included.		Average price.	Not included.	Average price.	Car lots.	1907.		1908.		1900.		1897.		1894.		1890.		Yes.	No.				
	Number.	Average price.	Number.	Average price.								Number.	Average price.	Number.	Average price.	Number.	Average price.	Number.	Average price.	Number.	Average price.	Number.	Average price.			Number.	Average price.	Number.	Average price.
	Number.	Average price.	Number.	Average price.	Number.	Average price.		Number.	Average price.	Number.	Average price.	Number.	Average price.	Number.	Average price.	Number.	Average price.	Number.	Average price.	Number.	Average price.	Number.	Average price.	Number.	Average price.	Number.	Average price.		
Ohio.....	61	\$2.63	32	\$2.52	29	\$2.76	45	\$2.60	2	\$3.03	50	11	56	\$2.26	42	\$2.17	24	\$2.11	14	\$2.03	11	\$2.23	6	\$3.16	45	3	13	Not stated.	
50,000 but less than 100,000.....	2	2.35	2	2.35	.....	.....	2	2.35	.....	.....	2	.....	2	2.06	2	2.05	2	2.05	2	1.90	1	2.25	1	3.00	.....	1	1	.....
10,000 but less than 50,000.....	7	2.51	7	2.51	.....	.....	7	2.50	.....	.....	7	.....	7	2.04	7	2.16	6	2.09	4	2.03	2	2.36	2	3.28	7	.....	.....	.....
5,000 but less than 10,000.....	9	2.58	8	2.52	1	3.00	8	2.56	.....	.....	7	.....	7	2.19	7	2.16	3	2.04	2	1.98	1	2.50	1	3.75	7	.....	.....	.....
Less than 5,000.....	43	2.68	15	2.54	28	2.75	30	2.66	2	3.03	34	9	38	2.33	26	2.18	13	2.14	6	2.09	7	2.15	2	2.83	31	2	10	.....
Oklahoma.....	7	3.14	3	2.75	4	3.44	6	3.31	1	2.18	5	2	6	2.89	4	2.79	1	3.00	.....	.....	.....	.....	.....	.....	5	.....	2	.....
10,000 but less than 50,000.....	1	2.18	1	2.18	.....	.....	1	2.18	.....	.....	1	.....	1	1.90	1	2.35	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5,000 but less than 10,000.....	2	3.04	2	3.04	.....	.....	2	3.04	.....	.....	2	.....	2	2.90	2	2.40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Less than 5,000.....	4	3.44	.....	.....	.....	.....	4	3.44	.....	.....	.....	.....	.....	3	3.21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oregon.....	4	3.48	1	3.60	3	3.43	.....	.....	.....	.....	.....	.....	.....	3	3.47	3	3.27	3	2.95	1	2.60	.....	.....	.....	.....	.....	.....	.....
Less than 5,000.....	4	3.48	1	3.60	3	3.43	.....	.....	.....	.....	.....	.....	.....	3	3.47	3	3.27	3	2.95	1	2.60	.....	.....	.....	.....	.....	.....	.....
Pennsylvania.....	58	2.61	45	2.55	13	2.82	47	2.60	3	2.86	48	10	48	2.22	41	2.23	25	2.18	14	1.95	9	2.09	6	2.47	40	2	16	.....
100,000 and over.....	2	2.25	2	2.25	.....	.....	2	2.25	.....	.....	2	.....	2	1.95	1	2.15	1	1.93	1	1.85	1	2.30	1	2.30	.....	.....	.....	.....
50,000 but less than 100,000.....	2	2.38	2	2.38	.....	.....	2	2.38	.....	.....	2	.....	2	2.00	2	2.05	1	1.95	1	1.94	1	2.18	1	2.18	.....	.....	.....	.....
10,000 but less than 50,000.....	7	2.51	7	2.51	.....	.....	7	2.51	.....	.....	7	.....	7	1.95	6	2.21	4	2.25	4	1.88	2	2.18	2	2.18	.....	.....	.....	.....
5,000 but less than 10,000.....	14	2.55	14	2.55	.....	.....	12	2.54	.....	.....	13	1	13	2.17	11	2.24	8	2.26	3	2.11	2	2.08	1	3.25	10	.....	.....	.....
Less than 5,000.....	33	2.69	20	2.61	13	2.82	26	2.69	3	2.86	24	9	26	2.33	21	2.26	11	2.13	6	1.89	4	2.00	4	2.08	23	1	9	.....
Rhode Island.....	5	2.67	5	2.67	5	2.67	4	2.18	3	2.32	3	2.13	2	2.24	1	2.60	2	3.51	3	2
50,000 but less than 100,000.....	1	2.50	1	2.50	1	2.50	1	1	2.10	1	2.16	1	2.16	1	2.10	1	2.60	1	3.13
10,000 but less than 50,000.....	2	2.86	2	2.86	2	2.86	2	2	2.10	1	2.23	1	1.88	1	2.10	1	2.60	1	3.13
Less than 5,000.....	2	2.86	3	2.86	2	2.86	2	2	2.40	1	2.55	1	2.36	1	2.36	1	2.60	1	3.58

bleaching action and treating further with a weak alkaline solution, rewashing, and finally repeating the bleaching process. It may be here mentioned that some considerable care is necessary in carrying out the bleaching operations in a satisfactory manner, as this pulp contains a fair amount of lignified fiber and is consequently readily liable to form yellow chlorination derivatives of the less resistant cellulose to hydrolytic treatment. This difficulty was overcome by maintaining a basic reaction throughout. Attempts were made to bleach with sulphurous acid in various conditions, but the calcium hypochlorite was found to be the most efficient.

Some interesting experiments were made by bleaching this pulp in the sun, excellent results being obtained, seemingly somewhat better than those arrived at under favorable conditions in the beater. The amount of manipulation required, however, would not admit of the employment of this method on a large scale.

Sizing, loading, etc.—Sufficient of the bleached pulp having been obtained in a pure state, by means of washing until free from dirt and other matter, some of the auxiliary preparations, such as the use of an "antichlor," were dispensed with. In certain cases where the pulp was sized the engine-sizing process was generally adopted. When the pulp was nearly ready for running, the rosin size, in the proportion of from 3 to 5 per cent, was added to the mixture of pulp and filling, shortly after the latter was incorporated, and the complete reaction brought about by the addition of the requisite amount of alum to the contents of the beater. At this stage of operations some delay was experienced in dealing with a rather unusual amount of frothing that was produced in the beater, which was finally removed on the addition of a small quantity of paraffin.

During the determination of rosin in the finished paper, it was noticed that there had also been extracted a quantity of foreign matter, other than rosin, of an oily nature, which, on further investigation, was found to have been derived from the original pulp. The presence of this matter appears to have a beneficial effect upon paper prepared from the unsized pulp.

Manufacture of paper on model mill.—In the following scheme of procedure several specimens of good paper were made, both with the marsh-grass fiber alone and also in conjunction with certain other pulps.

It is not proposed to enter on a detailed description of the methods of working and running on the paper machine, as all the papers prepared were furnished under similar conditions, and but for a little variation in their respective felting properties, which was regulated from time to time by a suitable adjustment of the couch roll, gave most satisfactory results.

After leaving the press roll the paper was passed over a series of nine drying cylinders, and finally through two rollers.

When used without mixture with other fibers, the salt-marsh pulp yields a close sheet of paper, suitable for good wrapper or casing purposes, and makes a smooth and glossy surface under the calender. It is capable of carrying a considerable amount of loading, and when sized will stand a severe test.

A specially good and uniform paper was produced from a mixture of this fiber with mechanical wood and sulphite pulp, 50 per cent of the former being included. This paper, when suitably loaded, would prove very suitable for an average writing, printing, or art paper, possessing an excellent texture, and having superior "feel" and "handle" properties. Unfortunately, no means was discovered of preparing the half-stuff in such a manner as to avoid the production of paper having speckles on the surface, unless subjected to a very severe treatment, which would be detrimental to its value as a finished article. This fault is caused by the presence of a large number of groups of cells in the fiber, which has been previously referred to, and, but for this fact, a high-class writing material could easily be manufactured.

In the following table will be found an account of the chemical and physical characteristics of the principal samples of paper prepared:

Furnish and composition of paper.	Chemical constituents.			Physical properties.			
	Molsture.	Ash.	Rosin.	Breaking strain in pounds.	Stretch.	Folding test.	Thickness in inches.
<i>Salt-marsh grass pulp:</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>		<i>Per cent.</i>		
Unbleached, unsized.....	11.45	2.44	Nil.	23.95	2.34	674	118
Bleached, unsized.....	11.16	2.79	Nil.	19.14	1.25	547	117
Bleached, sized, loaded.....	10.45	5.42	5.04	17.37	1.97	540	113
<i>Salt marsh, 50 per cent; sulphite pulp, 25 per cent; mechanical wood, 25 per cent; bleached, sized.....</i>	9.60	1.80	1.70	16.25	1.44	537	116
<i>Salt marsh, 50 per cent; sulphite pulp, 50 per cent; bleached, sized.....</i>	8.00	2.71	1.98	13.54	1.16	925	117

It may be pointed out that the resistance to strain and stretch was determined only on the "way of machine" of these papers, and is not an absolute measure of strength, but useful for the purpose of comparison. Allowance must also be made in each case for the variation in degree of thickness.

Aynsme, Grange-over-Sands, November, 1908.

Mr. COBB. This is a small map which is the result of a great deal of correspondence. It shows the range of the saw grass. That grows in the Everglades of Florida. We have not gone very far with that, because we have not seen how that stuff could be got at. You will remember that there was a railway pushed through down there; you probably saw an account of a "dry-land boat." They had to engineer through the Everglades, and in order to do it they constructed a special machine that enabled them to go in. I have started some correspondence to see what there is in it, but beyond that we have not done much. With regard to cotton stalks, I would report that we have them in Washington; and we have this point, which, so far as I know, is a novelty, but I would not be at all surprised if somebody else had hit upon the same idea: Noticing that cotton stalks standing in the field in the winter sometimes lose their outer white bark, it occurred to me if they lose that so easily, then by moistening them and agitating them mechanically that might be so removed. One of the greatest obstacles in making paper from cotton stalks hitherto has been in bleaching. If you will notice on these samples, there are specks all through the cotton-stalk paper. It is very difficult to bleach that stuff. That results from the presence in the pulp of bark that has not been removed or bleached. We have, in the Division of Agricultural Technology, of which I have charge, a man who is devoting his time to cotton, Professor Bennett, who has charge of some of our cotton work, and I asked him to make observations on this line I have just indicated. I noticed myself the fact that the bark would come loose, and I asked him to try different varieties of cotton, by soaking them and agitating them, and observe whether this bark could be removed mechanically, and he reported to me very recently, just a week ago, that he has tried it, with some success. Some lots of cotton stalks have just come to our laboratory, and my suggestion is, of course, that they take a small agitator, a laundry washing machine, or something of that sort, that will not cost much, and exploit that point a little more thoroughly. Where water power was available, or perhaps even where it was not, it would be possible to get rid of the outer bark by a mechanical agitation, which might be a very important step toward the utilization of cotton stalks for paper.

Mr. SIMS. Have you a paper to submit on the cotton-stalk proposition like the one you submitted on the marsh grass?

Mr. COBB. No; we have not.

The CHAIRMAN. Do you regard the manufacture of paper from cotton stalks now as a commercial possibility?

Mr. COBB. The matter of collecting and handling the cotton stalks would be even graver than that connected with corn.

The CHAIRMAN. And there is no possible stock food?

Mr. COBB. No.

The CHAIRMAN. On the other hand, you get a very much larger percentage of fiber per ton?

Mr. COBB. I think there is a larger percentage of fiber.

TARIFF ON SULPHITE FIBER.

KATAHDIN PULP AND PAPER COMPANY,
Lincoln, Me., December 21, 1908.

HON. J. R. MANN,
House of Representatives, Washington, D. C.

MY DEAR SIR: Replying to yours of December 9, I have no objection to your printing the statement which I had prepared for the Ways and Means Committee, if it would have any weight in relation to the decision on the tariff for sulphite pulp.

Since writing you on the 5th instant the importers of European sulphite have made a further discount in their prices, and the entire industry is very seriously affected by it.

With kindest regards, I remain,
Yours, very truly,

N. M. JONES.

KATAHDIN PULP AND PAPER COMPANY,
Lincoln, Me., December 5, 1908.

HON. JAMES R. MANN,
House of Representatives, Washington, D. C.

MY DEAR MR. MANN: I am in receipt of the six copies of Hearing No. 28 of the pulp and paper investigation kindly sent to me to Bangor by your direction. I wish to thank you for your thoughtfulness in the matter, and assure you that I appreciate it very much. I take pleasure in sending herewith a statement which I made up to present to the Committee on Ways and Means in Washington at the hearing, but was unable to attend, giving a few of my reasons why duties on sulphite fiber should not be reduced on Canadian product. I am also trying to put in writing my reasons why the duties on European pulp should be increased. As soon as I have them in shape I will furnish you a copy of same.

The sulphite-pulp business has been having a very hard time during the past year, and between ourselves, we have all lost money, and for your information, I also inclose copy of letter received by me today from our western brokers, relating to the offers that are being made to the western mills on foreign sulphite pulp by brokers. At the prices quoted in this letter, if the sulphite mills in this country had to compete, we would either have to close our plants or go into bankruptcy in a very short time. I will not undertake to make any arguments in this letter. I simply feel that I would like to give you such information as I have at my command. If you care for further data in connection with this matter, I should be pleased to send it to you from time to time, as I believe that you are willing to give to our industry all the protection that we should have, and I for one do not feel that we are asking for more than we are entitled to.

With kindest regards, I remain,
Yours, very truly,

N. M. JONES.

Mr. COBB. Certainly.

I do not know whether you have seen a map of the distribution of the paper mills [exhibiting chart].

The CHAIRMAN. I have had it in mind.

Have you given any attention in your investigations to the subject of so-called "Kraft" paper and its manufacture in the United States?

Mr. COBB. No; we have not.

The CHAIRMAN. You know what the Kraft paper is? It is a very light weight, extremely strong wrapping paper.

Mr. COBB. Yes, sir; I know.

The CHAIRMAN. It is now being imported into our country in considerable quantities, and the weight is not over one-half the weight of ordinary wrapping paper, and in some cases not so much as that. I was told by a gentleman who ought to know that that paper was made from resinous pines in northern Europe, and if so, and we could utilize the waste or a by-product of the resinous pines of the South for the manufacture of the supply, it might be very desirable.

Mr. COBB. I will look into that.

The CHAIRMAN. That is made, I think, by the so-called sulphate process, which can not be used where there is very much population.

Mr. COBB. The process is very deleterious to health.

The CHAIRMAN. I do not know that it is not unhealthy, but there is a very bad odor. They say it is like a rotten-egg factory. I do not know.

Then, in the course of your experiments, I wish you would consider the proposition of trying other woods for ground wood besides spruce, and possibly ascertain from some of the mills how far they have experimented with it, what success they have had, and what difficulties they have met with, with the possible view of obviating the difficulties in grinding other kinds of timber besides spruce. The present process of grinding wood, while exceedingly cheap, is also exceedingly crude. It might be that it would be possible to grind other woods than spruce, and possibly some wood that would reproduce very rapidly. They make to-day soda fiber out of cottonwood. The soda-fiber process is too expensive to make news print paper from. Cottonwood grows very rapidly in many places, willow grows very rapidly in many places, and probably other trees grow rapidly and reproduce rapidly. If it were possible to reduce that class of wood to ground wood it seems to me it would be a very valuable acquisition. I do not understand why it is not possible. With your knowledge of the form of the cellular matter, you might be able to make discoveries in reference to that.

Mr. COBB. I will certainly call the attention of the forestry people to that question. It is one that would naturally fall to them rather than to the Bureau of Plant Industry. I see what you mean and I will not lose sight of it.

The CHAIRMAN. Some time ago the newspapers quite generally printed dispatches and articles purporting to be statements about the results of these experiments as to cornstalks, etc., stating that they could make paper out of cornstalks for about \$15 or \$20 a ton. What have you to say about that?

Mr. COBB. I remember the articles and remember the scores and scores of letters of inquiry that came in to us on that subject. The reply that we made to all those letters was that the statements were

A large amount of the wood supplied us from Canada has been an aid to their agricultural development. The farmers have had an assured and profitable income while clearing their lands, and this advantage will continue as long as we admit pulp wood duty free.

The sulphite schedule with Canada should not be touched. Prices of sulphite have not materially advanced in eighteen years, while the cost of wood has advanced nearly 100 per cent and labor about 40 per cent. Prices have been kept down below a reasonable profit by the continual development of new mills in this country, and on account of the low duty, Canadian developments and competition and the competition from Europe have prevented the mills of this country obtaining a fair or remunerative profit on their investments, notwithstanding many of them have owned their own timber.

The production of sulphite pulp has increased from 200 tons daily in 1890 to 4,500 tons daily in 1908 in the United States and now represents an investment of more than \$25,000,000 in mills alone.

There is no sulphite pulp trust. The tariff on pulp has assumed a fictitious prominence in the minds of a few because of the unfounded talk about such a trust, and because of the mistaken supposition on the part of the public that there is a limitless supply of timber in Canada, and because of the further belief that to draw on this supposed immense supply will promote forest preservation in the United States, and for relief from the supposed exactions of the pulp trust it is proposed to remove the duty on pulp imported from Canada into the United States.

It is realized by few how low the duty now is on unbleached sulphite. The duty amounts to less than 8 per cent ad valorem against an average for the entire dutiable articles of about 40 per cent. Since it is a specific duty, it does not recognize the value of the importation. It is the lowest from a percentage standpoint on an article we most need and that is abundantly produced in this country. Canada has been shipping to this country freely under the tariff, and probably all she would have shipped if there had been no tariff.

There has been great activity in the sulphite pulp development in Canada, and mills have been built apparently as freely as in the United States. It seems doubtful if the removal of the present low duty would make any particular change in the rate of development of the Canadian industry. Since Canadian sulphite importations constitute less than 10 per cent of our normal production, it is questioned if it would have any material effect on prices. If it does not, there would be no material benefit to the consumer of paper, and the Government would lose nearly \$500,000 a year revenue; and it is fair to assume that all or a part of the duty would be added to the value of Canadian stumpages, or after the elimination of the American mills to any increase in the value of their product.

The removal of the duty would have an effect in this country chiefly on the lower grades, which are, under normal conditions, difficult to dispose of and which determine the profitability of the sulphite pulp industry and the feasibility of using forestry methods in lumbering by the utilization of forest products unfit for lumber and from which the lower grades of sulphites are produced. Canada's production of sulphite is principally of the lower grade.

To reduce the price of our low grades of pulp would prevent so close a utilization of the timber as is customary now, and would postpone the day when conservative lumbering along forestry lines will be practicable.

If the American consumer of sulphite pulp desires the forest preserved, we must follow the lumberman, using with him material unfit for lumber, and we must be protected on the lower grades of pulp produced from such material; otherwise it will become a loss and waste and a loss to the Government in the value of its own timber from a national standpoint of the removal of the duty.

Forestry methods have begun to be adopted simply because the value of timber and the by-products of the forest are becoming high enough to warrant it. Americans have a large amount of money invested in timber. Canadians in British Columbia get their timber for nothing and pay merely a carrying charge, which amounts to only about 1 cent per 1,000 feet per annum. They pay for the timber when they cut it (50 cents a thousand), and therefore have no material investment.

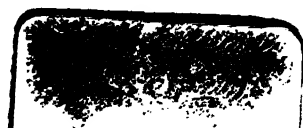
British Columbia timber, so far as it is held by private parties, is held on definite terms and periods. There is no advance in price to the limit holder, as it becomes no more valuable, except as a holder may sell his license to someone else.

In Ontario, on the other hand, there are auction sales which fix the price of limits the government has to offer, and to whatever increased extent Canadian sulphite pulp is imported, to that degree will the industry of the United States, which is established on a certain basis of demand and a certain adjustment thereto to supply, be injured.

Further, it would limit the demand and infallibly lower the wages of the now well-paid mill labor, which includes several thousand men.

To repeat, if the removal of the duty would not affect prices in the United States, it would do no one good, and would deprive the Government of needed revenue. If it would decrease prices, it would be only to an extent which would not materially benefit the American consumer, but would tend to the destruction instead of the preservation of our forests, would work serious damage to American manufacturers and imperil the investments of many of them, and put wages back to the standard of ten years ago, driving much of the labor to other fields of employment.

Certain of the Canadian provinces absolutely prohibit the exportation of pulp wood, etc. Such is the case at present with Ontario and British Columbia, the greatest two sources of supply of lumber for this country. Quebec gives a rebate on crown dues when material cut from crown lands is manufactured in the provinces. This is equivalent to 25 cents per cord export duty on pulp, but export is not prohibited. New Brunswick and Nova Scotia also permit exportation, and until the provinces of Ontario and British Columbia recede from their present position no consideration should be given Canadian interests, as the advantages to them accruing from a market for the disposing of their raw material would be greater than the advantage of free sulphite pulp to our consumers.



ber of pictures which may illustrate what I want to say better than I can do it by writing a long letter.

It is obvious that in the reproduction of saw logs a longer period than twenty or thirty years must elapse after planting and after coppicing.

As I understand it, your committee is interested only in raw material for the pulp and paper industry.

Saw logs, generally speaking, can not be reproduced in less than eighty years.

Logs of sufficient diameter produced more rapidly are faulty, necessarily, by being fast-grown, which means tough of fiber, and by being branchy, which means full of holes and defects.

Species of light specific gravity (white pine and spruce) are grown much faster than species of heavy specific gravity (white oak, hickory, maple, beech).

All of this I could illustrate to you more readily in an excursion through the woods of the Biltmore estate. After all, information relative to forestry, as you well know from your own experience in the northern woods, can not be obtained from books or from letters so well as it can be obtained from the woods.

I am sorry, indeed, that I shall not have a chance to show you the object lessons of the Biltmore estate, for the time being.

From your letter I take it that your committee is confronted by the question, "Shall forest reproduction be done by the Government, or shall it be left to the efforts of private interests?"

In my opinion both agencies should be put into action, and that without any delay.

Private individuals will practice forestry of a conservative nature just as soon as it will pay them so to do, or just as soon as they are sure of finding better dividends in forest conservation than in forest destruction.

The American forest owners belong to a class of men whom I would call particularly clear-headed business men.

If these men have considered it unwise to practice conservative lumbering heretofore, we do not require any further proof of the fact that forest conservation is not as remunerative as forest destruction, up to the present time.

Whether forest conservation be done by the Government directly, or is obtained at the expense of the people otherwise, that is a question of expediency merely.

Forestry will flourish as soon as the people are willing to foot the bill for (1) protection of the forest from fires, (2) reduction of the taxes encumbering a second growth, (3) high-priced lumber and high-priced cord wood.

I am, my dear Mr. Mann,

Your very obedient servant,

C. A. SCHENCK.

JANUARY 11, 1909.

HON. JAMES R. MANN,

House of Representatives, Washington, D. C.

My DEAR MR. MANN: Your letter of January 4 contains the following question: "Can spruce forests, under existing state laws, as to taxes and present fire protection, be profitably reproduced by private individuals or industrial corporations for use in business?"

To this question I am obliged to reply by an emphatic "no."

Reproduction can be profitable only when it is safe. As the matter now stands, the danger from fire under present state laws is so considerable as to make investments in second-growth spruce particularly risky.

A risky investment must promise very high returns to find favor with the investor. Dividends of 10 or 20 per cent can not be expected, in my humble opinion, from forestal investments under any circumstances, and a dividend of from 4 to 8 per cent is out of keeping with the risk taken by the man investing his dollars and cents in second-growth spruce forests.

The influence of taxation as an expense in forestry is such as to discourage the investor in second growth.

Financially a tax of 4 cents per acre is not so bad, provided that the price of spruce stumpage is as high in 1930 in this country as it is to-day in the old. In the German Black Forest and in the Bavarian Forest the price of spruce stumpage as used at the pulp mills is approximately \$12 a cord.

You can imagine that the woods in question, producing per acre per annum a cord of spruce wood, can readily stand an annual tax of as much as 20 cents to the acre.

The investment in second growth, or, rather, the investment by which a second growth may be produced, be it by planting or be it from self-sown seed, is approximately, in my opinion, the sum of \$10 or \$12 an acre. By this investment can be secured a complete and dense second growth, growing at the rate of 1 cord per annum, without fail, barring fires.

If the price of stumpage remains as low as it is to-day, it will not be profitable to secure a second growth when removing the first growth; if the price of second growth runs up in the next thirty years to \$10 a cord, then, and in that case, the prospects for American forestry are good, barring fires.

It is quite true that the problem of forest fires is identical with the problem of American forestry.

The existing state laws are entirely insufficient to warrant the safety of sylvicultural investments. The owners of cut-over woodlands show little interest in legislation safeguarding second growth, because stumpage values are low in this country and the certainty has not yet dawned upon the minds of most lumbermen or owners of cut-over lands that the prices of stumpage in days to come must run as high in this country as they are now running in Germany or France.

If Congress prevents by suitable custom duties the importation of wood and lumber from the outside, the possibility of increased stumpage values will present itself to the owners of cut-over woodlands; such owners will be eager to have their woodlands protected from fires, and will be more eager than they are now to invest a few dollars per acre for the production of second growth.

Here at Biltmore, in the planted forests we have been fairly safe from forest fires so far. I am quite sure, however, that this condition will not continue.

The natural second growth obtained in primeval woods safe from fires has suffered badly, here as well as elsewhere, and many an excellent second growth of chestnut and poplar raised by me during the

last fifteen years has been utterly destroyed, with little chance for another second growth left, because of forest fires.

The profitable reproduction of stumpage depends, naturally, on stumpage prices.

As long as stumpage can be imported into New York from Canada as cheaply as it can be transferred from Wisconsin, and cheaper than it can be transferred from the southern Appalachian region into New York, the chances for profit obtainable from sylvic investments will be slim.

Canada will be able, I should judge, to supply us for a number of years with spruce—say for thirty years. After a lapse of thirty years the Canadian spruce woods and our own spruce woods will be exhausted, and there will be presented a condition of affairs as deplorable as that which now confronts Italy and Spain with reference to the forests.

To me it seems that the question of cheap paper is less important to the American commonwealth than the problem of expensive stumpage.

If stumpage is cheap, no one can afford to produce it, neither here nor in Germany. If we want forestry we, as a people, through Congress, have to see to it that forestry is a good investment.

It will be a good investment if Congress enacts proper laws tending to secure for the owner of second growth protection by a federal forest police (the federal marshal and his deputies can act as such police, and no new organization is required).

As regards the cheapness of paper, I, for one, am in favor of expensive printing paper, particularly for the reason that 90 per cent of the papers contain "stuff" that is not fit to print.

Many an advertisement covering a whole page contains reading matter of six lines only; many a page is devoted to descriptions of murders and other obnoxious matter which can not be considered of educational value, and it should be cut down, by all means.

If printing paper is more expensive, education by the newspapers will be fostered rather than checked.

Unless Congress takes a firm stand and makes private forestry remunerative, there will be no private forestry; there will be 500,000,000 acres of barren lands, formerly productive of forests, within fifty years.

Have your choice.

Have cheap paper for another thirty years, and after that time very expensive paper, and vast areas of unproductive land.

Yours for high prices of paper, pulp, and spruce, and with deep respect,

C. A. SCHENCK.

INFORMATION CONCERNING PULP AND PAPER MANUFACTURING INDUSTRY IN UNITED STATES.

The CHAIRMAN. Referring to the following letter and tables compiled by the Census Office, which we will publish now for information, I will say that many new schedules have been received since this tabulation, and new and more complete tables are being prepared by experts under the direction of the committee.

The information in the schedules is received in confidence, and no facts relating to any particular mill will be disclosed in any way.

DEPARTMENT OF COMMERCE AND LABOR,
BUREAU OF THE CENSUS,
Washington, December 1, 1908.

HON. JAMES R. MANN,
*Chairman Select Committee on
Pulp and Paper Investigation,
House of Representatives, Washington, D. C.*

SIR: I respectfully transmit herewith tabulations made in this bureau of the replies to the schedule inquiries addressed by your committee to manufacturers of pulp and paper.

About 900 schedules relative to the manufacture of pulp and paper were mailed, and approximately 450 replies were received, but only 188 of these, covering the operations of 235 plants, have been tabulated in the tables presented herewith. A considerable number of the schedules of the paper manufacturers were thrown out because their operations did not fall within the scope of the investigation. Especially is this true of those returning as raw materials rags, old paper, straw, hemp, cotton waste, and the like.

It is thus seen that the results obtained by the committee are incomplete and not comparable with census statistics. To illustrate the impracticability of comparing the statistics of these tables with those of the census, it may be stated that the capital returned by the establishments represented in the tabulations herewith amounts to \$147,757,670, whereas the total capital invested in the manufacture of paper and wood pulp during the calendar year 1904, as shown by the census figures, was \$277,444,471. The total cost of materials returned by the establishments represented in the tabulations made from the returns to the committee is \$49,183,106, compared with \$111,251,478 for the entire industry as returned at the census of 1905. The value of products returned by the establishments represented in the tabulations herewith is \$82,716,044, compared with \$188,715,189 for the entire industry as shown at the 1905 census. In addition to this there has doubtless been an increase during the last three years in the number of establishments engaged in this manufacture, and hence it is impracticable to state how nearly the present condition of the entire industry is revealed by these imperfect statistics.

Table 1.—Number of establishments returned; capital invested; salaried employees and wage-earners; and rent and taxes; by States, 1907.

Table 2.—Number of establishments returned; cost of materials used, according to kind, quantity, and value; by States, 1907.

Table 3.—Number of establishments returned, and quantity and value of manufactured products; by States, 1907.

Table 4.—Cost of manufacturing product; percentage represented by wages, by materials, and by all other expenses of production; 1907.

Table 5.—Comparative monthly average selling prices per ton of news-print paper; by States, 1906 and 1907.

Table 6.—Comparative monthly average selling prices per ton of several kinds of paper; by States, 1906 and 1907.

Table 7.—Number of plants reported; yearly capacity of the mills for the manufacture of paper and pulp; and the average number of days operated in 1907.

Hoping that the material transmitted may prove of service, I am,
Respectfully,

S. N. D. NORTH, *Director.*

TABLE 1.—*Number of establishments returned, capital invested, salaried employees and wage-earners, rents, and taxes, by States, 1907.*

State.	Number of establishments.	Capital (amount).	Salaried employees.			Wage-earners.			Rent, taxes, etc.
			Number.	Salaries.	Average salary.	Number.	Wages.	Average wage.	
Total.....	188	\$147,757,670	1,413	\$2,757,849	\$1,952	26,409	\$13,567,620	\$514	\$7,690,773
Connecticut.....	6	830,627	22	33,378	1,517	238	134,025	563	69,064
Illinois.....	4	724,075	19	18,677	983	154	89,500	581	36,398
Indiana.....	3	1,392,970	18	21,909	1,217	172	90,639	527	77,997
Maine.....	5	3,012,144	30	71,743	2,391	791	417,264	528	196,597
Massachusetts.....	21	60,051,195	397	819,617	2,065	8,302	4,019,519	484	1,862,477
Michigan.....	14	11,148,272	145	238,453	1,645	2,628	1,290,602	491	754,177
Minnesota.....	3	2,365,034	21	32,393	1,543	407	240,625	591	153,176
New Hampshire.....	4	986,853	19	26,248	1,381	207	105,828	511	44,797
New Jersey.....	8	1,794,814	37	126,172	3,410	566	307,744	544	147,397
New York.....	45	37,278,774	299	658,076	2,201	6,249	3,493,208	559	2,268,877
Ohio.....	9	1,496,770	31	39,460	1,273	397	218,184	550	102,164
Pennsylvania.....	20	10,993,710	126	248,821	1,975	2,563	1,289,531	503	905,897
Vermont.....	10	1,162,609	26	55,866	2,149	265	133,520	504	62,602
Virginia.....	3	556,982	18	32,798	1,822	145	61,225	422	81,597
West Virginia.....	3	216,382	8	14,450	1,806	118	62,797	532	36,597
Wisconsin.....	23	11,488,001	162	260,346	1,607	2,815	1,395,781	496	746,187
All other States ^a	7	2,258,458	35	59,442	1,698	392	218,228	557	138,757

^a Includes Maryland, with two establishments; Delaware, Missouri, North Carolina, South Carolina, and Washington, with one establishment each.

TABLE 2.—*Number of establishments returned, cost of materials used, expressed by kind, quantity, and value, by States, 1907.*

State.	Number of establishments.	Cost of materials used during the year.					
		Wood for pulp.			Ground-wood fiber.		
		Cords.	Value.	Average price (per cord).	Tons.	Value.	Average price (per ton).
Total.....	188	1,021,383	\$7,969,012	\$7.80	111,497	\$2,378,011	\$21.33
Connecticut.....	6				4,518	79,065	17.50
Illinois.....	4						
Indiana.....	3	200	1,500	7.50	1,248	29,941	23.11
Maine.....	5	85,020	512,250	6.03	7,854	137,300	17.46
Massachusetts.....	21	22,222	166,276	7.48	10,130	214,099	21.14
Michigan.....	14	99,441	578,555	5.82	11,572	269,247	23.27
Minnesota.....	3	29,001	245,353	8.29	1,872	44,505	23.77
New Hampshire.....	4	1,173	4,861	4.14	641	14,566	22.72
New Jersey.....	8				421	13,044	30.86
New York.....	45	484,705	3,939,492	8.13	22,224	454,868	20.47
Ohio.....	9				1,300	31,150	23.96
Pennsylvania.....	20	91,049	757,817	8.32	619	15,820	24.13
Vermont.....	10	15,043	143,836	9.56	0,248	126,506	20.20
Virginia.....	3						
West Virginia.....	3						
Wisconsin.....	23	173,244	1,513,278	8.73	32,090	714,587	22.27
All other States ^a	7	19,685	105,788	5.37	10,760	233,813	21.73

^a Includes Maryland, with two establishments; Delaware, Missouri, North Carolina, South Carolina, and Washington, with one establishment each.

TABLE 2.—Number of establishments returned, cost of materials used, expressed by kind, quantity, and value, by States, 1907—Continued.

	Number of establishments.	Cost of materials used during the year.					
		Sulphite.			Soda.		
		Tons.	Value.	Average price (per ton).	Tons.	Value.	Average price (per ton).
Total.....	188	180,367	\$8,542,565	\$47.36	40,832	\$2,159,016	\$43.33
Connecticut.....	6	1,415	60,620	42.84	64	2,876	44.94
Illinois.....	4	46	1,869	40.63			
Indiana.....	3	1,711	80,926	47.29			
Maine.....	5	738	25,508	34.56			
Massachusetts.....	21	65,546	3,488,322	53.22	29,863	1,288,634	43.15
Michigan.....	14	15,058	616,953	40.97	8,875	381,245	42.96
Minnesota.....	3	4,826	230,205	47.70			
New Hampshire.....	4	3,302	151,270	45.81	3,770	162,186	43.02
New Jersey.....	8	502	22,277	44.38			
New York.....	45	29,997	1,221,606	40.72	405	18,348	45.30
Ohio.....	9	4,078	178,667	43.81	132	6,203	46.99
Pennsylvania.....	20	6,492	317,512	48.91	3,893	171,687	44.10
Vermont.....	10	6,133	247,482	40.35	26	1,124	43.23
Virginia.....	3	139	6,435	46.29	915	39,537	43.21
West Virginia.....	3	70	2,842	40.60			
Wisconsin.....	23	37,057	1,737,936	46.90	1,801	82,247	45.67
All other States ^a	7	3,257	152,135	46.71	88	4,929	56.01

	Number of establishments.	Cost of materials used during the year.					
		All other.			Fuel (value).	Other materials (value).	Total cost (amount).
		Tons.	Value.	Average price (per ton).			
Total.....	188	31,489	\$719,856	\$22.86	\$5,400,935	\$22,013,711	\$49,183,106
Connecticut.....	6				59,164	204,487	406,212
Illinois.....	4				34,767	235,996	272,622
Indiana.....	3				43,924	213,566	369,857
Maine.....	5				222,612	382,972	1,290,646
Massachusetts.....	21	299	17,308	57.89	1,159,389	7,983,990	14,318,018
Michigan.....	14	23,333	516,041	22.12	656,828	1,564,555	4,583,424
Minnesota.....	3				61,769	106,388	688,220
New Hampshire.....	4				44,030	203,412	580,325
New Jersey.....	8	1,150	44,850	39.00	125,068	756,163	962,002
New York.....	45	3,808	62,231	16.34	1,491,456	4,562,110	11,750,111
Ohio.....	9				102,411	712,793	1,031,224
Pennsylvania.....	20	657	30,215	45.99	579,560	2,686,084	4,558,195
Vermont.....	10				38,246	106,758	663,952
Virginia.....	3				11,400	158,466	215,638
West Virginia.....	3				30,934	303,758	327,534
Wisconsin.....	23	2,242	49,211	21.95	588,999	1,554,335	6,240,593
All other States ^a	7				149,778	277,888	924,331

^a Includes Maryland, with two establishments; Delaware, Missouri, North Carolina, South Carolina, and Washington, with one establishment each.

TABLE 3.—Number of establishments returned, quantity and value of manufactured products, by States, 1907.

	Quantity and value of manufactured products.						
	Number of establishments.	News paper.					
		In rolls.			In sheets.		
		Tons.	Value.	Average price (per ton).	Tons.	Value.	Average price (per ton).
Total.....	188	126,970	\$5,300,508	\$41.75	53,550	\$2,271,019	\$42.41
Connecticut.....	6	2,035	85,877	42.20			
Illinois.....	4						
Indiana.....	3						
Maine.....	5						
Massachusetts.....	21						
Michigan.....	14	13,806	608,862	44.10			
Minnesota.....	3	22,608	955,581	42.27	4,113	199,141	48.41
New Hampshire.....	4	1,852	97,919	52.87	789	41,693	52.84
New Jersey.....	8						
New York.....	45	39,908	1,573,193	39.42	31,701	1,254,495	39.57
Ohio.....	9						
Pennsylvania.....	20	825	43,867	53.17	465	25,877	55.65
Vermont.....	10						
Virginia.....	3						
West Virginia.....	3						
Wisconsin.....	23	33,317	1,335,826	40.09	16,482	749,813	45.49
All other States.....	7	12,619	599,383	47.50			

Quantity and value of manufactured products.									
	Number of establishments.	All other varieties of paper.			Pulp and fiber sold.			All other products, value.	Total value, amount.
		Tons.	Value.	Average price (per ton).	Tons.	Value.	Average price (per ton).		
Total.....	188	870,900	\$66,311,978	\$76.14	202,702	\$6,979,538	\$34.43	\$1,853,001	\$82,716,044
Connecticut.....	6	14,461	588,190	40.54					672,067
Illinois.....	4	14,561	390,488	26.13				96,495	476,983
Indiana.....	3	18,349	653,382	35.61					653,382
Maine.....	5	24,940	1,160,330	46.53	28,638	1,078,190	37.65		2,238,520
Massachusetts.....	21	208,034	23,617,852	113.53				2,213	23,620,065
Michigan.....	14	107,420	6,974,764	64.93	6,851	273,280	39.89	71,761	7,928,667
Minnesota.....	3				3,925	81,719	20.82		1,236,441
New Hampshire.....	4	7,354	720,866	98.02					860,478
New Jersey.....	8	6,450	580,179	89.95				1,245,266	1,825,475
New York.....	45	202,987	13,481,898	66.42	97,892	3,767,637	38.49	133,859	20,211,062
Ohio.....	9	26,467	1,529,235	57.78				1,600	1,530,835
Pennsylvania.....	20	108,700	7,500,040	70.29	7,432	222,051	29.88	285,249	8,077,084
Vermont.....	10	12,868	788,422	61.27	15,995	282,995	16.44		1,051,417
Virginia.....	3	5,340	451,093	84.47					451,093
West Virginia.....	3	5,631	480,295	85.29					480,295
Wisconsin.....	23	94,051	6,450,475	68.58	41,932	1,293,222	30.84	16,467	9,845,803
All other States a.....	7	15,287	956,469	62.57	37	444	12.00	2,274	1,556,357

a Includes Maryland with two establishments; Delaware, Missouri, North Carolina, South Carolina, and Washington with one establishment each.

TABLE 4.—Total cost of manufacturing paper and pulp, per cent of total cost represented by wages, materials, and other expenses.

State.	Estab- lish- ments reported (number).	Total cost of manu- facturing (amount).	Cost of production represented by—					
			Wages.		Materials.		All other expenses.	
			Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.
Total.....	188	\$73,200,446	\$13,567,620	18.5	\$40,183,106	67.2	\$10,449,720	14.3
Connecticut.....	6	642,679	134,025	20.9	406,212	63.2	102,442	15.9
Illinois.....	4	417,165	89,500	21.5	272,622	65.3	55,043	13.2
Indiana.....	3	560,994	90,639	16.2	369,857	65.9	100,498	17.9
Maine.....	5	1,965,858	417,264	21.2	1,280,648	65.2	267,946	13.6
Massachusetts.....	21	21,024,729	4,019,519	19.1	14,318,018	68.1	2,687,192	12.8
Michigan.....	14	6,872,690	1,290,002	18.7	4,583,424	66.7	999,264	14.6
Minnesota.....	3	1,114,436	240,625	21.6	688,220	61.7	185,591	16.7
New Hampshire.....	4	757,179	105,828	14.0	580,325	76.6	71,026	9.4
New Jersey.....	8	1,543,310	307,744	20.0	962,002	62.3	273,564	17.7
New York.....	45	18,173,526	3,493,208	19.2	11,750,111	64.7	2,930,207	16.1
Ohio.....	9	1,390,902	218,184	15.6	1,031,224	74.2	141,494	10.2
Pennsylvania.....	20	7,002,443	1,289,531	18.4	4,558,195	65.1	1,154,717	16.5
Vermont.....	10	905,411	133,520	14.8	663,952	73.3	107,939	11.9
Virginia.....	3	391,421	61,225	15.7	215,838	55.1	114,358	29.2
West Virginia.....	3	453,290	62,797	13.9	337,534	74.4	52,959	11.7
Wisconsin.....	23	8,643,675	1,395,781	16.1	6,240,593	72.2	1,007,301	11.7
All other States.....	7	1,340,738	218,228	16.3	924,331	68.9	198,179	14.8

* Includes Maryland with two establishments; Delaware, Missouri, North Carolina, South Carolina, and Washington with one establishment each.

TABLE 5.—Comparative monthly average selling prices, per ton, of news-print paper, by States, 1906 and 1907.

State.	Year.	Average prices per ton (2,000 pounds)—											
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Connecticut.....	1907	\$44.00	\$44.00	\$44.00	\$44.00	\$44.00	\$44.00	\$44.00	\$44.00	\$44.00	\$44.00	\$44.00	\$44.00
	1906	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
Michigan.....	1907	37.79	36.95	35.83	36.66	37.22	39.44	40.40	41.03	41.73	42.53	43.31	42.58
	1906	35.11	33.79	34.18	35.59	35.15	34.60	33.49	33.08	33.90	35.84	37.22	34.38
Minnesota.....	1907	37.15	37.00	37.40	37.60	37.60	39.20	39.29	39.49	41.60	42.10	43.50	44.40
	1906	36.90	37.30	37.40	37.40	36.80	37.30	36.69	36.70	37.30	36.80	37.10	36.10
New Hampshire.....	1907	65.76	61.30	58.40	60.00	61.30	61.80	59.60	59.90	59.60	61.12	60.00	59.30
	1906	58.36	56.46	60.58	60.36	59.80	61.24	61.30	58.26	59.00	60.60	61.36	63.80
New York.....	1907	38.88	40.73	41.46	42.46	43.45	43.54	43.57	43.75	44.10	45.31	44.85	45.09
	1906	35.61	36.65	36.74	36.84	37.31	37.43	37.59	37.53	34.39	38.05	38.56	38.77
Pennsylvania.....	1907	52.00	52.00	52.00	54.00	54.00	54.00	55.00	55.00	56.00	56.00	56.00	56.00
	1906	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00
Wisconsin.....	1907	47.92	49.51	49.42	51.03	51.27	51.51	51.29	52.52	53.55	53.81	53.52	53.95
	1906	47.16	47.29	48.08	47.28	47.39	46.15	45.75	46.06	46.73	47.72	48.22	48.39

The statistics shown in the table were computed from reports of establishments which produced in 1907, 126,970 tons of news print, in rolls, valued at \$5,300,508, or an average of \$41.75 per ton, and 53,550 tons in sheets, valued at \$2,271,019, or an average of \$42.41 per ton. Computed on the combined figures the average price is \$41.94. According to the census there were produced in the calendar year 1904, 840,802 tons, in rolls, valued at \$32,763,308, or an average of \$38.97 per ton, and 72,020 tons in sheet, valued at \$3,143,152, or an average of \$43.64 per ton. It thus appears that the quantity of news print represented in Table 5 for 1907 is 180,520 tons, or about 20 per cent of the products reported for the census of 1905. The average price per ton of the averages, as returned by the manufacturers for the month of January, 1907, is \$46.21, compared with \$49.33 for December of the same year. The comparative prices for 1906 are \$43.59 for January and \$44.85 for December.

TABLE 6.—Comparative monthly average selling prices per ton of several kinds of paper, 1906 and 1907.

	Year.	Average prices per ton (2,000 pounds)—											
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Book.....	1907	78.64	74.20	80.15	81.86	80.80	80.96	81.43	81.20	81.99	82.33	82.91	82.71
	1906	79.12	78.85	78.94	78.54	79.20	78.18	78.64	78.39	78.67	78.72	78.63	78.02
Building.....	1907	33.71	34.03	34.24	34.97	35.02	34.08	34.16	34.00	33.92	34.62	34.52	34.28
	1906	29.97	30.10	30.37	29.26	30.08	29.21	30.25	30.45	30.55	30.55	29.45	29.58
Hanging.....	1907	40.00	40.00	40.00	42.00	42.00	42.00	42.67	42.67	42.38	42.50	42.67	44.54
	1906	38.70	38.41	38.45	38.30	38.88	39.00	39.67	39.67	40.00	40.00	40.00	40.00
Tissue:													
Manila.....	1907	75.67	75.67	75.67	79.25	79.25	79.25	78.00	78.00	78.00	78.00	78.75	76.73
	1906	75.67	75.67	74.00	76.75	76.75	76.75	76.75	76.75	78.00	78.00	76.75	76.75
Fine.....	1907	197.30	194.95	193.35	196.90	188.95	196.90	197.28	201.45	198.80	191.45	191.05	200.55
	1906	197.00	192.40	194.30	187.75	199.90	193.20	196.40	199.05	190.80	191.75	193.45	198.90
Wrapping:													
Manila.....	1907	46.87	47.00	47.41	47.48	48.81	48.81	49.43	51.16	51.81	52.13	52.63	53.03
	1906	44.21	44.35	44.08	44.13	44.53	44.25	44.11	43.87	43.85	44.56	44.89	45.04
Heavy.....	1907	36.00	37.50	37.50	37.50	38.00	38.00	39.00	39.00	40.50	40.50	40.50	40.50
	1906	33.00	33.00	33.00	33.00	33.00	33.00	33.00	33.00	34.00	34.00	34.00	34.00
Straw.....	1907	24.03	24.49	24.59	24.34	24.53	24.79	25.17	25.47	25.67	25.71	25.58	25.59
	1906	22.86	23.05	22.75	23.26	22.67	22.14	22.66	22.99	23.37	23.05	23.25	23.43
Writing:													
Ordinary.....	1907	76.75	77.42	76.55	79.71	79.80	79.63	79.04	79.26	79.06	79.47	80.01	78.88
	1906	75.12	75.00	74.57	74.44	74.71	74.70	74.65	74.39	75.26	75.20	75.18	76.20
Fine.....	1907	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00
	1906	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00
Superfine.....	1907	188.60	187.80	189.00	188.80	189.40	192.40	196.20	186.70	191.40	191.30	192.60	193.19
	1906	190.00	186.20	185.60	184.20	185.30	187.70	188.30	182.60	188.00	184.40	187.50	186.80
Ledger.....	1907	267.36	275.36	275.36	275.36	275.36	275.36	275.36	275.36	275.36	275.36	275.36	275.36
	1906	262.60	262.60	262.60	262.60	262.60	262.60	262.60	262.60	262.60	262.60	262.60	262.60
Bond No. 1.....	1907	240.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00
	1906	235.00	235.00	235.00	235.00	235.00	235.00	235.00	235.00	235.00	235.00	235.00	235.00
Bond No. 2.....	1907	208.33	215.00	215.00	215.00	215.00	215.00	215.00	215.00	215.00	215.00	215.00	215.00
	1906	206.67	206.67	206.67	206.67	206.67	206.67	206.67	206.67	206.67	206.67	206.67	206.67
Bond No. 3.....	1907	188.69	195.77	194.96	197.63	197.22	196.33	198.95	197.61	197.20	198.22	197.61	198.21
	1906	185.61	184.86	183.66	184.82	184.83	185.09	185.09	184.14	184.20	185.35	185.22	184.54
Envelope.....	1907	105.82	105.82	106.82	106.50	108.32	108.32	108.32	108.32	108.32	108.32	108.32	108.32
	1906	103.32	103.32	103.32	103.32	103.32	103.32	103.32	103.32	103.32	103.32	103.32	103.32

TABLE 7.—Number of plants returned, total yearly capacity, average capacity, and average number of days operated in 1907, distributed by States.

State.	Plants reported (number).	Yearly capacity (short tons).		Average capacity (short tons).		Average number days operated in 1907.
		Paper.	Pulp.	Paper.	Pulp.	
Total.....	235	1,190,628	673,260	5,808	8,522	272
Connecticut.....	8	22,126		2,766		267
Illinois.....	4	18,308		4,577		222
Indiana.....	3	20,580		6,860		280
Maine.....	5	29,250	52,700	5,850	10,540	308
Massachusetts.....	45	222,112	11,710	4,936	5,855	298
Michigan.....	17	144,559	57,570	9,035	8,224	246
Minnesota.....	6	31,000	32,500	10,333	6,500	186
New Hampshire.....	4	12,011	1,500	3,003	1,500	291
New Jersey.....	6	21,092		3,515		292
New York.....	58	300,518	318,712	6,830	10,281	270
Ohio.....	9	33,105		3,678		256
Pennsylvania.....	21	127,990	49,425	6,093	8,238	282
Vermont.....	11	14,850	39,528	2,475	7,906	265
Virginia.....	2	5,800		2,900		284
West Virginia.....	3	6,155		2,052		282
Wisconsin.....	25	147,142	100,915	7,357	7,208	297
All other States ^a	8	34,060	8,700	4,866	4,350	269

^a Includes Maryland and South Carolina, with two plants each; Delaware, Missouri, North Carolina, and Washington, with one plant each.

One company frequently controls more than one plant and makes a consolidated report. This accounts for the 188 returns shown in Table 1, and 235 plants in this table; the sources of the information, however, are the same.

Of the 235 plants shown in the above tabulation, 152 were returned as manufacturing paper exclusively, 23 pulp exclusively, and 60 both paper and pulp. In computing the averages, therefore, this segregation has been observed.

DEPARTMENT OF COMMERCE AND LABOR,
BUREAU OF THE CENSUS,
Washington, December 29, 1908.

HON. JAMES R. MANN,
*Chairman Select Committee on Paper and Pulp Investigation,
House of Representatives, Washington, D. C.*

DEAR MR. MANN: I inclose a short statement in regard to the average prices of news-print paper. These averages have been computed from the reports made by newspaper publishers, and also from the testimony taken by the committee. I have excluded as far as possible all data concerning paper other than news print, and have made the statement as short as possible, avoiding the repetition of statistics. The text can be extended if you so desire by quoting the figures and making comparisons, but the amount of matter would depend upon your general scheme for the report.

In making the digest of the testimony that was sent you some time ago we brought together all of the information under different subjects. There is considerable on the subject of "price of paper" which could be incorporated in the report if you desire.

The average price of paper is subject to all kinds of limitations, which should be given due weight in comparing it with actual prices paid by individual consumers. Some of these conditions are described in the inclosed statement.

The original reports of the newspapers are available for the preparation of almost any line of statistics concerning prices, and if you desire totals giving prices of paper other than news print, or further detailed description and comparison of the statistics, I shall take pleasure in complying with your wishes.

It is unfortunate that the schedule sent newspaper publishers did not call for the amount of paper consumed and the actual cost, so that a true average cost per hundredweight could be obtained by a division of the price by the quantity. The averages reported on the schedules are far from satisfactory.

Very truly, yours,

W. M. STEUART,
Chief Statistician for Manufactures.

PRICES OF PAPER.

The cost of paper to publishers is one of the most important features of the investigation, and information relative to this has been secured from both manufacturers and consumers. The committee has discovered that while all parties interested are willing to furnish quotations of prices, there is no uniformity in the price given, even where purchases were made during the same period. Among the causes which are responsible for these conditions, the following were brought out in the correspondence with the publishers and manufacturers and in the committee hearings:

1. The fact that some of the purchases were made under contract and others on the open market. Publishers buying under contract, as a rule, obtain more favorable terms than those buying on the market.

2. The differences in the time when the respective contracts were made and in the duration of the contract, inasmuch as the contract price ordinarily bears a cer-

tain correspondence to the market price prevailing at the time when the contract is made.

3. The variations in the quantity of paper involved in the different contracts in general. Large consumers obtain more favorable rates than small consumers.

4. The definiteness with which the contract price is fixed. In some cases the contract specifically indicates the price which is to be paid during the life of the contract; in others the price is based upon some factor, such as the cost of production, which is subject to more or less variation.

5. Differences in the grade of paper purchased.

6. The form in which the paper is purchased—whether in rolls, sheets, or ream lots.

7. The inclusion of freight charges in some instances and their exclusion in others.

8. The discount for cash or for payment within a specified time which is given to some consumers.

9. The fact that some publishers purchase through jobbers or brokers, while others deal directly with the mill.

10. The credit of the customer. Publishers of established credit are likely to receive somewhat more favorable terms than those of whom the manufacturer knows little.

11. The method of payment. The fact that payment was to be made weekly was one of the things taken into consideration in making the low price in the Hearst contract.

12. The fact that some of the smaller publications buy "side runs," for which the average price is about 30 cents per hundredweight less than for the ordinary size.

It is impracticable to make a satisfactory adjustment of these various conditions so as to arrive at a trustworthy general average price for news-print paper at a given time. Separate quotations may be accepted in individual cases, and from a combination of the prices paid for the same grade of paper under contracts covering the same period of time the average price for a limited number of purchasers may be obtained, but the combination of prices paid under dissimilar conditions, however, results in a general average which is apt to be misleading, and in the consideration of which it is impossible to give proper weight to the various conditions under which the purchases were made. Nevertheless, in the absence of a more satisfactory basis of comparison, an average based on the prices paid by a large number of publishers who purchased paper under varying conditions is not without value, as it may convey some general idea as to the price of news-print paper at a given time.

The qualifications above noted should be kept in mind in the consideration of the following tables, which have been prepared from the schedule returns of publishers and purport to show the average prices of news-print paper in the years 1890, 1894, 1897, 1900, 1905, and 1907. Of these tables, Table 1 shows the average price per hundredweight of news-print paper paid by the publishers of newspapers only; Table 2 the average price paid by the trade, fraternal, and religious papers reporting; and Table 3 the average price for the magazines reporting. In all instances the averages shown in these tables have been computed by adding the average prices reported on the individual schedules and dividing the total thus obtained by the number of schedules involved.

TABLE 1.—Average prices of news-print paper per hundredweight, compiled from reports of newspapers.

	Period.	Total.		Dailies.	
		Number reporting.	Average price.	Number reporting.	Average price.
Average price of paper purchased in rolls.....	(a)	457	\$2.57	418	\$2.55
Average price of paper purchased in sheets.....	(a)	735	3.08	193	2.94
Average price where freight is included.....	(a)	656	2.79	440	2.55
Average price where freight is not included.....	(a)	318	3.02	84	2.77
	1907	1,020	2.53	554	2.30
Average price paid in selected years by all publications, reported without reference to the inclusion or exclusion of freight charges, the quantity purchased, or the manner of purchase.	1905	773	2.44	435	2.29
	1900	455	2.33	261	2.21
	1897	248	2.19	143	2.06
	1894	155	2.50	85	2.63
	1890	116	2.85	59	2.94

a Spring of 1908.

TABLE 1.—Average price of news-print paper per hundred weight, compiled from reports of newspapers—Continued.

	Period.	Weeklies.		All other.	
		Number reporting.	Average price.	Number reporting.	Average price.
Average price of paper purchased in rolls.....	(a)	32	\$2.84	7	\$2.54
Average price of paper purchased in sheets.....	(a)	502	3.13	40	3.08
Average price where freight is included.....	(a)	196	3.10	20	2.96
Average price where freight is not included.....	(a)	215	2.13	19	3.01
Average price paid in selected years by all publications, reported without reference to the inclusion or exclusion of freight charges, the quantity purchased, or the manner of purchase.	1907	426	2.82	40	2.72
	1905	310	2.64	28	2.43
	1900	178	2.51	16	2.36
	1897	94	2.39	11	2.04
	1894	63	2.56	7	2.25
	1890	51	2.81	6	2.43

a Spring of 1908.

TABLE 2.—Average price of news-print paper per hundredweight, compiled from reports of trade, fraternal, and religious papers.

	Period.	Total.		Dailies.		Weeklies.	
		Number reporting.	Average price.	Number reporting.	Average price.	Number reporting.	Average price.
Average price of paper purchased in rolls.....	(a)	41	\$2.71	13	\$2.70	14	\$2.74
Average price of paper purchased in sheets.....	(a)	91	3.63	6	3.35	58	3.46
Average price where freight is included.....	(a)	74	3.26	11	2.95	40	3.42
Average price where freight is not included.....	(a)	17	3.23	3	2.52	9	3.21
Average price paid in selected years by all publications reporting without reference to the inclusion or exclusion of freight charges, the quantity purchased, or the manner of purchase.	1907	113	3.04	18	2.48	60	3.17
	1905	81	2.88	16	2.44	40	3.02
	1900	40	2.85	7	2.07	20	3.08
	1897	23	2.93	4	2.03	12	2.89
	1894	17	3.28	3	2.43	9	2.92
	1890	14	3.47	2	2.84	7	3.27

	Period.	Monthlies.		All other.	
		Number reporting.	Average price.	Number reporting.	Average price.
Average price of paper purchased in rolls.....	(a)	12	\$2.73	2	\$2.42
Average price of paper purchased in sheets.....	(a)	18	3.83	9	3.89
Average price where freight is included.....	(a)	16	3.00	7	3.46
Average price where freight is not included.....	(a)	4	3.87	1	3.05
Average price paid in selected years by all publications reporting without reference to the inclusion or exclusion of freight charges, the quantity purchased, or the manner of purchase.	1907	26	3.04	9	3.29
	1905	19	3.01	6	2.78
	1900	9	3.19	4	2.35
	1897	5	3.86	2	2.57
	1894	4	4.80	1	2.89
	1890	3	4.87	2	2.70

a Spring of 1908.

TABLE 3.—Average prices of news-print paper, per hundredweight, compiled from reports of magazines.

Period.	Total.		Weeklies.	
	Number reporting.	Average price.	Number reporting.	Average price.
Average price of paper purchased in rolls.....	(a) 8	\$2.77	1	\$4.00
Average price of paper purchased in sheets.....	(a) 5	4.17	1	4.2
Average price of paper where freight is included.....	(a) 9	3.29	1	4.2
Average price of paper where freight is not included.....	(a) 1	3.75		
Average price paid in selected years by all publications reporting, without reference to the inclusion or exclusion of freight charges, the quantity purchased, or the manner of purchase.....	1907 9	2.88	2	3.7
	1905 6	2.35	1	3.5
	1900 2	2.14		
	1897 1	1.90		
	1894 1	2.75		
	1890			

Period.	Monthlies.		All other.	
	Number reporting.	Average price.	Number reporting.	Average price.
Average price of paper purchased in rolls.....	(a) 7	\$2.59		
Average price of paper purchased in sheets.....	(a) 3	4.30	1	\$3.75
Average price of paper where freight is included.....	(a) 8	3.18		
Average price of paper where freight is not included.....	(a) 1		1	3.7
Average price paid in selected years by all publications reporting, without reference to the inclusion or exclusion of freight charges, the quantity purchased, or the manner of purchase.....	1907 7	2.63		
	1905 5	2.12		
	1900 2	2.14		
	1897 1	1.90		
	1894 1	2.75		
	1890			

* Spring of 1908.

In making the above tabulation all returns were excluded in which the publishers specifically indicated that they were reporting the price, not of news-print paper, but of book paper or other superior grades. In spite of this fact, however, the high averages shown in some instances in Tables 2 and 3 make it seem probable that in some cases the publishers returned the prices paid for other varieties than news-print paper without specifying this fact. The averages in these tables must therefore be accepted with some degree of caution.

It will be observed that in Table 1 the average price when freight is included is less than the average when freight is excluded. It is difficult to assign any reason for this, although it may be to some extent due to the fact that the publications in the western portion of the country, who more often reported the price excluding freight, seem to have paid a relatively higher price than those in the East, which furnished the greater proportion of the returns in which freight was included.

According to Table 1, the average price paid for news-print paper in the spring of 1908, by the publishers reporting, was \$2.57 per hundredweight for paper purchased in rolls and \$3.08 for paper purchased in sheets. The former figure shows a remarkably close correspondence with the average deduced from the prices reported to the committee as paid by 22 publishers who appeared before it in person and by 172 publishers who sent responses to the telegram sent out by Mr. Ridder on May 1, this average being \$2.56. It must be remembered, however, that there is no uniformity in these returns with regard to the inclusion or exclusion of freight charges.

In connection with the above tabulation the following tabular information, taken from Bulletin 75 of the Bureau of Labor, may be of interest:

TABLE 4.—*Wholesale prices per pound of news paper (wood) in New York, on the first of each month: 1907.^a*

Month.	Price.	Month.	Price.
January.....	\$0.0225-\$0.0250	August.....	\$0.0245-\$0.0265
February.....	.0200-.0225	September.....	.0245-.0265
March.....	.0200-.0225	October.....	.0255-.0275
April.....	.0245-.0265	November.....	.0255-.0275
May.....	.0245-.0265	December.....	.0255-.0275
June.....	.0245-.0265	Average.....	.0249
July.....	.0245-.0265		

^a The figures presented in this table are taken from Bulletin 75 of the Bureau of Labor, page 594. The original quotations are from the New York Journal of Commerce and Commercial Bulletin.

TABLE 5.—*Monthly actual and relative prices of news paper in 1907 and base price (average for 1890-1899).^a*

[Average for 1907 computed from quotations in Table 1.]

Month.	Price per pound.	Relative price.	Month.	Price per pound.	Relative price.
Average, 1890-1899.....	\$0.0299	100.0	August.....	\$0.0255	85.3
January.....	.0238	79.6	September.....	.0255	85.3
February.....	.0213	71.2	October.....	.0265	88.6
March.....	.0213	71.2	November.....	.0265	88.6
April.....	.0255	85.3	December.....	.0265	88.6
May.....	.0255	85.3	Average, 1907.....	.0249	83.3
June.....	.0255	85.3			
July.....	.0255	85.3			

^a The figures presented in this table are taken from Bulletin 75 of the Bureau of Labor, page 414. The monthly prices are based upon the figures given in Table 5.

TABLE 6.—*Average yearly actual and relative prices of news paper, 1890-1907, and base price, 1890-1899.^a*

Year.	Average price per pound.	Relative price.	Year.	Average price per pound.	Relative price.
Average, 1890-1899.....	\$0.0299	100.0	1899.....	\$0.0209	69.9
1890.....	.0382	127.8	1900.....	.0281	94.0
1891.....	.0340	113.7	1901.....	.0226	75.6
1892.....	.0340	113.7	1902.....	.0242	80.9
1893.....	.0318	106.4	1903.....	.0253	84.6
1894.....	.0323	108.0	1904.....	.0267	89.3
1895.....	.0308	103.0	1905.....	.0242	80.9
1896.....	.0275	92.0	1906.....	.0219	73.2
1897.....	.0271	90.6	1907.....	.0249	83.3
1898.....	.0219	73.2			

^a The figures presented in this table are taken from Bulletin 75 of the Bureau of Labor, page 452.

It will be noted that according to the above authority the average market price of news-print paper in New York during 1907 was \$2.49 per hundredweight, while the average of the prices reported by the newspapers sending replies to the committee's inquiry was \$2.53, a remarkably close approximation. For 1905 the figures are even closer, the average wholesale price in the New York market having been \$2.42, while the average deduced from the schedules is \$2.44. For the remainder of the years specified in the schedule sent out by the committee the averages show a wide difference, however, which in 1890 amounts to 97 cents per hundredweight.

The above tables of the Bureau of Labor were made up on a uniform basis, and the price for each year represents presumably the mill price plus the freight rate to New York, while the number of publications upon which the averages in Table 1 are based varies from 116 in 1890, to 1,020 in 1897, with a consequent variation in the factors

affecting the average reported for any given year. It should be noted, however, that the general movement of the prices shown in Table 1 is virtually the same as that shown in Table 6, the maximum price shown in both cases for the years presented in Table 1 being for 1890 and the minimum in 1897, with a steady decline from 1890 to 1897 and a steady increase from 1897 to 1907.

According to Table 6 the lowest average wholesale price of news-print paper in the New York market since 1890 was \$2.09 per hundredweight, reported in 1899, while the highest was \$3.82 per hundredweight, reported in 1890. The lowest wholesale quotation during this period was from \$1.75 to \$2 per hundredweight for October, 1899, and the highest from \$3.75 to \$4.50 per hundredweight for January, 1890.

In connection with the statistics already presented it may be well to present the following comparative statement, which shows the prices paid at different times by 19 publications whose representatives appeared before the committee.

TABLE 7.—Comparative statement of prices paid at different times by the publications represented at the hearings.

Publication.	Period covered by contract.	Year in which contract was made.	Prices paid.		Source of supply.
			Delivered.	At mill.	
Maryland:					
Baltimore American....	Jan., 1906, to Jan., 1909....	1907	\$2.50	.....	International Paper Co.
Do.....	Jan. 1, 1906, to Dec 31, 1907..	1905	1.90	.....	Do.
Illinois:					
Chicago Tribune.....	Jan., 1905, to Jan., 1910....	1904	(a)	.....	Perkins, Goodwin & Co.
Kansas:					
Topeka State Journal..	Jan., 1908, to Jan., 1909....	1907	2.60	\$2.29	Itasca Paper Co.
Do.....	Nov., 1906, to Jan., 1908....	1906	2.21	1.91	John A. Davis & Co.
Do.....	Sept., 1905, to Sept., 1906....	1905	2.25	1.93	General Paper Co.
Do.....	Aug., 1897, to Mar., 1898....	1897	1.73	1.34	Graham Paper Co.
Massachusetts:					
Springfield Republican	July, 1905, to July, 1908....	1905	2.00	.....	International Paper Co.
Rhode Island:					
Providence Tribune...	Mar., 1907, to Mar., 1912....	1907	(b)	.....	Do.
Providence Telegram..	Apr., 1906.....	1906	1.90	.....	Pejepscoot Paper Co.
Massachusetts:					
Springfield Union.....	Jan., 1908, to Jan., 1909....	1907	2.30	1.80	J. R. Booth.
Rhode Island:					
Providence Journal....	Jan., 1906, to Jan., 1911....	1905	(c)	.....	International Paper Co.
North Carolina:					
Asheville Gazette-News.	Jan., 1908-9.....	1907	3.00	2.57	Antietam Paper Co.
New Hampshire:					
Manchester Union.....	Sept., 1907, to Sept., 1908....	1906	2.00	.....	Pejepscoot Paper Co.
Do.....	Sept., 1905, to Sept., 1907....	1905	1.90	.....	Do.
New York:					
Syracuse Post-Standard.	Jan., 1908-9.....	1907	2.50	.....	H. G. Craig & Co.
Do.....	Dec., 1905-7.....	1905	1.75	1.68	St. Regis Co.
Minnesota:					
Duluth News-Tribune.	Dec., 1904-9.....	1904	(d)	.....	Perkins, Goodwin & Co.
Ohio:					
Akron Beacon-Journal.	Jan., 1908-9.....	1908	2.45	.....	Whitaker Paper Co.
Missouri:					
Sedalia Democrat.....	Aug., 1907-8.....	1907	2.63	.....	Graham Paper Co.
Ohio:					
Woman's Home Companion, The Farm and Fireside.	Jan., 1907-8.....	.....	2.43	.....	Laurentide Paper Co.
Tennessee:					
Memphis Commercial-Appeal.	Jan., 1908, to Dec., 1908....	1907	2.60	.....	Manufacturing Paper Co.
Do.....	Jan., 1907-8.....	1906	2.00	.....	Do.
Do.....	July, 1905, to Jan., 1907....	1905	2.12	.....	Do.
Do.....	Jan., 1905-6.....	1904	2.37	.....	Do.
Do.....	Jan., 1904-5.....	1903	2.40	.....	Do.

a The first two years, \$2.10, less 1½ per cent; after that price to be determined.

b First year \$2.20; market price in January for each of next two years.

c 1906, \$2.05; 1907, \$2.10; 1908, \$2.50.

d 1906 (1907, less 1½ per cent), \$2.10; market price after.

e Less 3 per cent for thirty days.

f 3 per cent off for cash.

TABLE 7.—Comparative statement of prices paid at different times by the publications represented at the hearings—Continued.

Publication.	Period covered by contract.	Year in which contract was made.	Prices paid.		Source of supply
			Delivered.	At mill.	
New Jersey:					
Newark Evening News.	Jan. 1, 1906, to Dec. 31, 1908.	(a)	2.50		International Paper Co.
Do.	Jan. 1, 1907, to Dec. 31, 1907.	(a)	2.35		Do.
Do.	Oct., 1905, to Dec., 1906.	(a)	2.25		Do.
Do.	Apr., 1905, to Dec., 1906.	(a)	2.40		Do.
Do.	Apr., 1904, to Apr., 1905.	(a)	2.40		Do.
Do.	Apr., 1903, to Apr., 1904.	c1906	2.40		Do.
Do.	Apr., 1902, to Apr., 1903.		2.25		Do.
Do.	Apr., 1901, to Apr., 1902.		2.40		Do.
Do.		c1900	2.15		Do.
Do.		c1899	2.15		Do.
Do.		c1898	2.12½		Wilder & Co.
Illinois:					
Chicago Record-Herald.	Jan., 1906-1910.	1905	(d)		International Paper Co.
Do.	Jan., 1905-1906.	1904	2.00		Do.
Tennessee:					
Knoxville Sentinel.	1908.		2.62½		W. H. Parsons & Co.
Pennsylvania:					
Johnstown Democrat.	1908.		2.55		International Paper Co.

a No date given.

b Cotton waste.

c April.

d 1906, \$2; not less than \$1.90 or more than \$2.10.

e 2 per cent discount for 10 days.

The lowest price shown in this statement is \$1.34 per hundredweight at the mill, or about \$1.73 delivered, paid by the Topeka (Kans.) Daily State Journal under a contract running from August, 1897, to March, 1898. The highest price shown is \$2.57 per hundredweight at the mill, or \$3, which was paid by the Asheville (N. C.) Gazette-News under a contract covering the calendar year 1908. The lowest delivered price mentioned in the course of the testimony as having been paid for news-print paper at any time was \$1.60 per hundredweight, on what is known as the production basis, equivalent to about \$1.50 on the present gross-weight basis, paid by the New York World in 1897. Mr. Hastings, of the Lynn Item, stated that he paid \$1.64½ delivered, for 100 tons of paper purchased on January 5, 1898. The prices paid by the New York Staats Zeitung from 1891 to 1908 were presented in a statement submitted to the committee by Mr. Lyman, of the International Paper Company, the maximum being \$2.90 delivered, paid in 1891, and the minimum \$1.75 delivered, from February, 1899, to August 31, 1900, and during the calendar year 1906. The evidence shows that in general the price of news-print paper reached its lowest level from 1897-1899, although as late as 1906 and 1907 the New York Staats Zeitung and the Syracuse Post-Standard obtained paper from the St. Regis Company for \$1.75 delivered.

Table 8 shows the prices of news-print paper during 1906, 1907, and 1908, as obtained from the evidence presented to the committee by a large number of publishers. The general average price per hundredweight, as computed from this testimony, was \$2.10 in 1906, \$2.28 in 1907, and \$2.54 in 1908.

[From evidence presented to Select Committee on Pulp and Paper Investigation.]

TABLE 8.—*Prices of news-print paper.*

1906.

State, city, or town, and publication or publisher reporting price.	Price of news-print paper per hundredweight.	Remarks.
Arizona:		
Tucson Daily Star.....	\$2.25	
California:		
Chico Record.....	2.90	Carload lots.
Durango Democrat.....	2.90	
Los Angeles Evening News.....	2.53	F. o. b. Los Angeles.
Redlands Review.....	3.40	F. o. b. Redlands; carload lots.
Sacramento Union.....	2.15	F. o. b. mill.
Stockton Daily Record.....	2.75	
Colorado:		
Denver News.....	1.85	Price f. o. b. mill prior to August 1, 1907.
Connecticut:		
Ansonia Sentinel.....	2.01	Under contract expiring September 1.
Bridgeport Standard.....	2.00	Up to May 1, 1907.
New London Daily Globe.....	2.00	F. o. b. New London; carload lots.
Norwich Bulletin.....	2.00	Under contract ending February 1, 1907.
Stamford Daily Advocate.....	2.10	
Georgia:		
Augusta Chronicle.....	2.22	Under contract for 1906. Quotation for delivery price.
	2.18	
Illinois:		
Aurora Daily News.....	2.00	F. o. b. Chicago; small lots.
Centralia Evening Sentinel.....	2.25	
Chicago Daily Journal.....	1.95	Until June 1, 1907.
Chicago Tribune.....	2.00	Delivered under contract.
Chicago News and Record-Herald.....	2.00	Do.
Danville Commercial News.....	2.00	Contract for 1906 f. o. b. Danville.
Danville Democrat.....	2.35	Until July 1, 1907.
Danville Daily Press.....	2.00	
Elgin Courier.....	2.00	
Joliet Daily News.....	2.05	Do.
Joliet Herald.....	2.05	Contract for 1906.
Lincoln Daily Courier.....	2.04	
Peoria Herald-Transcript.....	1.97	Price delivered until July, 1907.
Quincy Herald.....	2.12	Under contract ending in 1907.
Rockford Morning Star.....	2.14	
Illinois State Register (Springfield).....	2.10	Under contract f. o. b. Springfield. Freight rate about 16 cents.
Indiana:		
Evansville Journal-News.....	2.09 to 2.25	
Goshen News-Times.....	2.00	
Indianapolis, Muncie, and Terre Haute Star.....	2.05	
Marion Leader, Indianapolis Hoosier, Crawfordsville Review, and Asheville (N. C.) Citizen.....	2.00	Until April 1, 1907.
Marion News-Tribune.....	1.98	
Princeton Clarion-News.....	1.93	
Indian Territory:		
Muskogee Daily Phoenix.....	2.40	Price in December.
Iowa:		
Waterloo Courier.....	2.00	Under contract.
Kansas:		
Chanute Sun.....	2.45	F. o. b. Kansas City.
Fort Scott Tribune-Monitor.....	2.40	Under contract delivered f. o. b. Hutchinson.
Hutchinson News.....	2.52	
Newton Republican.....	1.94	Price at mill.
Parsons Sun.....	2.20	
Pittsburg Headlight.....	2.26	Until July, 1907.
Topeka Daily State Journal.....	2.25	Under contract for 1906 f. o. b. Topeka. Price at mill, \$1.93.
Wichita Daily Beacon.....	2.46	
Kentucky:		
Louisville Herald.....	2.00	Until April 5, 1907.

^a Less 1½ per cent.

^b Less 4 per cent.

^c Delivered.

TABLE 8.—*Prices of news-print paper*—Continued.

1906—Continued.

State, city, or town, and publication or publisher reporting price.	Price of news-print paper per hundred-weight.	Remarks.
Louisiana:		
Charles S. Clark, New Orleans (for supply of Daily States and News).	\$1.92	F. o. b. New York, under year's contract ending May 1, 1907.
New Orleans Picayune.....	2.40	Delivered at wharf, New Orleans.
Shreveport Times.....	2.47½	
Maine:		
Portland Argus.....	1.90	
Portland Evening Express.....	2.00	
Maryland:		
Baltimore American.....	1.90	Under 2-year contract expiring December 31, 1907, f. o. b. Baltimore.
Massachusetts:		
Lynn Item.....	2.25	Price paid on March 9.
	2.05	Price paid from June to October.
	2.00	Price in November and December.
Pittsfield Eagle.....	2.00	Car lots, delivered.
Springfield Republican.....	2.00	Under 3-year contract expiring in 1908.
Taunton Herald-News.....	2.10	Under contract for 1906.
Michigan:		
Adrain Daily Telegram.....	1.98	Delivered, year ending August, 1906.
Kalamazoo Evening Telegraph.....	2.05	
Kalamazoo Gazette.....	1.90	
Sault Ste. Marie News.....	2.10	November 12.
Minnesota:		
Duluth News-Tribune.....	1.92½	Under 2-year contract expiring September 30, 1907, delivered; freight, 5 cents.
Duluth Evening Herald.....	1.92½	Contract expiring September 30, 1907.
Minneapolis Journal.....	1.93	Contract to November 1, 1907.
St. Paul Dispatch.....	1.93	Under contract.
Winona Republican-Herald.....	2.00	
Missouri:		
Joplin News-Herald.....	2.12	One year contract ending in July.
Kansas City (Mo.) Journal.....	1.80	F. o. b. mills.
St. Joseph Gazette.....	1.95	At mill.
St. Joseph News-Press.....	2.05	F. o. b. St. Joseph, on contract beginning June 1.
Nebraska:		
Lincoln State Journal.....	2.15	
Omaha Daily Bee.....	1.80	F. o. b. mill, until February 20, 1907.
New Hampshire:		
Manchester Union.....	1.90	Delivered, under two-year contract expiring September 1, 1907.
Manchester Mirror and American....	2.15	
Manchester National and Canada-American.....	2.15	Delivered, under one-year contract expiring February 3, 1907.
New Jersey:		
Asbury Park Press.....	1.95	F. o. b. Asbury Park.
Newark Star.....	2.00	Until May, 1907.
Newark Evening News.....	2.25	
Paterson News.....	1.90	
New Mexico:		
Albuquerque Citizen.....	3.45	Until May, 1907.
New York:		
Albany Herald.....	2.45	Car lots f. o. b. Albany.
Alling and Corey (for supply Jamestown Morning Post).....	2.00	Under contract expiring March 2, 1907, f. o. b. Jamestown.
Crowell Publishing Co.....	1.94	Under two-year contract, f. o. b. Springfield, Ohio.
New York Morning Telegraph.....	1.95	
New York Staats-Zeitung.....	1.75	Under contract for 1906, delivered.
Syracuse Post-Standard.....	1.75	F. o. b. Syracuse, under contract.
Syracuse Journal.....	2.00	Do.
North Carolina:		
Asheville Citizen.....	2.20	F. o. b. Asheville.
Greensboro Daily Record.....	2.20	
North Dakota:		
Grand Forks Herald.....	2.22½	Delivered, under contract expiring in June, 1907.
Ohio:		
Akron Beacon-Journal.....	1.90	Under 2-year contract commencing January 1, f. o. b. sidewalk.
Columbus Dispatch.....	1.90	
East Liverpool Evening Record.....	2.00	
Marietta Journal.....	2.10	Car lots.
Marion Star.....	2.00	
Toledo Express.....	1.94	Delivered, under contract expiring May 1, 1907.

a Less 3 per cent.

b Less 4 per cent.

TABLE 8.—*Prices of news-print paper*—Continued.

1906—Continued.

State, city, or town, and publication or publisher reporting price.	Price of news-print paper per hundred-weight.	Remarks.
Oklahoma:		
Oklahoma City Oklahoman.....	\$1.90	F. o. b. under contract.
Oregon:		
Salem Capitol Journal.....	2.15	
Pennsylvania:		
Allentown Morning Call.....	1.94	
Bradford Evening Star.....	2.00	Price in October.
McKeesport Daily News.....	2.00	Contract. Expires September 1, 1907.
Philadelphia Press.....	1.90	Under contract.
Pottsville Daily Republican.....	1.90	Under contract, delivered. Freight 18 to 20 cents.
Reading Times.....	2.10	
Williamsport News.....	2.00	Under contract expiring March 1, 1907.
Rhode Island:		
Providence Tribune.....	1.90	Under 5-year contract expiring February 29, 1912. Prices fixed each year.
Providence Journal.....	2.05	Under 5-year contract expiring January 1, 1910. Prices adjusted every November.
South Dakota:		
Deadwood Pioneer Times.....	2.20	
Sioux Falls Daily Press.....	2.05	Delivered.
Tennessee:		
Memphis Commercial Appeal.....	2.12½	Under contract running from July 1, 1905, to December 31, 1906. Delivered.
Knoxville Sentinel.....	2.00	Under contract. Delivered.
Texas:		
Fort Worth Record.....	1.88	Under 2-year contract beginning July 1, f. o. b. mill.
Houston Chronicle.....	1.80 to 1.89	
San Antonio Light.....	1.90	
San Antonio Gazette.....	1.88	
Utah:		
Deseret News (Salt Lake).....	1.85	F. o. b. mill under 2-year contract beginning in February.
William Gleason, Ogden.....	3.05	Delivered.
Salt Lake Tribune.....		Price at mill until July 1, 1907. Freight \$1.05.
Vermont:		
Burlington Free Press.....	1.94	
Burlington Daily News.....	2.00	Under contract.
Montpelier Daily Journal and Vermont Weekly Watchman.....	2.30	F. o. b. Montpelier under contract expiring March 10, 1907.
Virginia:		
Virginian Pilot (Norfolk).....	2.15	F. o. b. Norfolk under 3-year contract expiring June 30, 1908.
Bristol Herald-Courier.....	2.20	Delivered. Freight, 30 cents.
Washington:		
Seattle Post-Intelligencer.....	2.50	F. o. b. Seattle until March 16, 1907.
West Virginia:		
Fairmont West Virginian.....	2.00	Until fall of 1907.
Parkersburg State Journal.....	2.00	
Wheeling Register.....	1.95	
General average price for 119 of the publications for which quotations are given.	2.10	

1907.

Arizona:		
Arizona Republican (Phoenix).....	2.20	Price f. o. b. mill. Freight rate \$1.89. Contract ending April 30, 1908.
Tucson Daily Star.....	2.60	
Arkansas:		
Hot Springs Daily News.....	2.31	Price f. o. b. mill under contract beginning December 1, 1906, and ending in spring of 1908.
Little Rock Democrat.....	1.80 to 2.30	Price f. o. b. mill under contract for 1907. Quotation price f. o. b. mill for 1908.
California:		
Chico Record.....	3.60	Carload lots.
Durango Democrat.....	3.35	
Los Angeles Evening News.....	3.05	F. o. b. Los Angeles.
Redlands Review.....	3.00	Quotation.
Stockton Daily Record.....	2.55	F. o. b. Redlands; carload lots.
Sacramento Union.....	3.40	Contract for 1907.
Canada:		
Ottawa (Ontario) Citizen.....	2.25	F. o. b. mill; new contract made in 1907.
	2.00	Under 3-year contract beginning in May, 1907.

* Less 3 per cent, thirty days.

TABLE 8.—*Prices of news-print paper*—Continued.

1907—Continued.

State, city, or town, and publication or publisher reporting price.	Price of news-print paper per hundred-weight.	Remarks.
Colorado:		
Denver News.....	\$2.22½	Price f. o. b. mill beginning August 1, 1907.
Grand Junction Daily News.....	3.30	Price paid for 1 carload in June.
Leadville Herald-Democrat.....	2.30	Contract price f. o. b. mill.
Connecticut:		
Ansonia Evening Sentinel.....	2.03	Under contract expiring September 1.
Bridgeport Standard.....	2.25	Under contract beginning with May 1.
Hartford Globe.....	1.90	Under contract ending in April, 1908.
Meriden Morning Record.....	2.00	Price delivered under contract ending in February, 1908.
New London Daily Globe.....	2.60	Quotation for 1908.
Norwich Bulletin.....	2.00	Price f. o. b. New London for carload lots in September.
New London Day.....	2.15	Under contract for 1907.
Stamford Daily Advocate.....	2.60	Quotation made for 1908.
Winsted Citizen.....	2.50	Under contract expiring in August.
Waterbury Republican.....	2.70	Under new contract commencing in August.
District of Columbia:		
National Tribune.....	2.00	
Florida:		
Tampa Tribune.....	2.30	Price f. o. b. press room, under contract ending March 1, 1908.
Georgia:		
Augusta Chronicle.....	2.25	
Columbus Enquirer Sun.....	2.30	Under contract for 1907.
Macon News.....	2.80	Quotation for 1908.
Savannah Press.....	2.30	Price delivered under contract for 1907.
Illinois:		
Aurora Daily News.....	2.30	F. o. b. Macon, under contract for 1907.
Bloomington Bulletin.....	2.20	
Chicago Daily Journal.....	2.35	Contract for 1907.
Chicago Abend Post.....	2.10	Until November 1.
Chicago Tribune.....	2.35	Subsequent to June 1.
Chicago News and Record Herald.....	1.87½	
Centralia Evening Sentinel.....	2.05	Delivered under contract.
Cauro Bulletin.....	2.05	Do.
Danville Commercial News.....	2.68	In car lots delivered.
Danville Democrat.....	2.09	Under contract.
Danville Daily Press.....	2.50	On April 1, 1907, f. o. b. Danville.
Decatur Herald.....	2.44½	Contract beginning in July, 1907, Danville. f. o. b.
Elgin Courier.....	2.57½	Beginning July 1.
Household Guest (Chicago).....	2.65	
Illinois State Register (Springfield).....	2.18	
Joliet Herald.....	2.50	Quotation.
Joliet Daily News.....	2.50	
Lincoln Daily Courier.....	2.00	F. o. b. press room.
Moline Daily Dispatch.....	2.02½	Under contract f. o. b. Springfield. Freight rate about 16 cents.
Peoria Journal.....	2.50	Quotations for 1908.
Peoria Herald-Transcript.....	2.62	Contract for 1907.
Quincy Whig.....	2.40	Beginning July 1.
Quincy Herald.....	2.45	
Rock Island Argus.....	2.35	Until August 1.
Rockford Morning Star.....	2.02½	F. o. b. Peoria.
Rockford Register-Gazette.....	2.40	Price delivered, beginning with July.
Indiana:		
Anderson Evening News and Weekly Democrat.....	1.96	Single car.
Evansville Journal-News.....	2.35	
Evansville Courier.....	2.08½	Contract for 1907.
Goshen News-Times.....	2.45	Until August 1.
Indianapolis, Muncie, and Terre Haute Star.....	2.08½	F. o. b. Peoria.
	2.25	Price delivered, beginning with July.

a Less 2 per cent 30 days.
b Net 30 days.

c Less 3 per cent.
d Less 1½ per cent.

e Net
f Less 3 per cent cash.

TABLE 8.—Prices of news-print paper—Continued.

1907—Continued.

State, city, or town, and publication or publisher reporting price.	Price of news-print paper per hundred-weight.	Remarks.
Indiana—Continued.		
Lafayette Courier	\$2.57	Under contract.
Marion News Tribune	2.42	
Marion Leader, Indianapolis Hoosier, Crawfordsville Review, and Asheville (N. C.) Citizen	2.25	Beginning Apr. 1.
Princeton Clarion News	2.60	Beginning in June.
Portland Commercial Review	2.75	Under contract beginning August 1, 1907.
South Bend Tribune	2.30	Under contract.
Indian Territory.		
Muskogee Daily Phoenix	2.32	Price in March.
	2.91	Price in April.
	3.00	Price under contract for 1 year made in 1907.
Iowa:		
Burlington Hawkeye	2.08	Until August.
Council Bluffs Leader	2.10	Under contract running until February 1, 1908.
Creston Advertiser	2.10	Under contract delivered. Freight 20 cents.
Davenport Democrat	2.00	Under contract ending in August.
Dubuque Times-Journal	2.00	Under contract expiring September 1.
Dubuque Telegraph-Herald	2.00	Do.
Des Moines Capital	2.00	F. o. b. Des Moines.
Sioux City Tribune	2.06	Under contract.
Waterloo Courier	2.40 ^a	Do.
Waterloo Times-Tribune	2.03 ^a	
Kansas:		
Atchison Globe	2.48	Under contract, delivered.
Chanute Sun	3.15	F. o. b. Kansas City.
Coffeyville Journal	2.57	Under contract, delivered.
Fort Scott Tribune-Monitor	2.80	Do.
Hutchinson News	2.93	F. o. b. Hutchinson.
Iola Register	2.40	Under contract.
W. P. Feder, Great Bend	2.50	No contract.
Newton Republican	2.68	Price at mill.
Parsons Sun	2.81	
Pittsburg Headlight	2.5317	Beginning in July.
Wichita Beacon	1.97	Until September.
Wichita Daily Beacon	3.15	Delivered.
	2.75	Quotation September 21, f. o. b. Chanute.
	2.80	Quotation September 26, f. o. b. Chanute.
	3.15	Quotation October 1, f. o. b. Kansas City.
	3.08	Quotation October 2, f. o. b. Chanute.
	3.00	Quotation October 9, f. o. b. Chanute. Price at mill \$2.62.
Topeka Daily State Journal	2.21	Under contract for 1907 f. o. b. Topeka. Price at mill \$1.90, less 3 per cent for cash.
Kentucky:		
Louisville Anzeiger	2.05	
Louisville Herald	2.30	Taking effect April 5, 1907.
Owensboro Messenger	2.20	F. o. b. Owensboro.
Paducah News-Democrat	2.20	Taking effect January 1, 1907.
Louisiana:		
New Orleans Picayune	2.85	Delivered at wharf in New Orleans.
Shreveport Times	2.40	Until August f. o. b. wharf.
	2.86	Gradually since January 1, 1907.
Maine:		
Bangor Commercial, Bangor	2.50	F. o. b. Bangor.
Biddeford Daily Journal	2.50	Under contract expiring May 1, 1908.
Portland Argus	2.10	
Portland Evening Express	2.00	Contract expires 1911; price adjustable December of each year.
Rockland Daily Star	2.25	F. o. b. Rockland, under contract ending December 15.
F. B. Nichols, Bath	2.25	Until summer.
Maryland:		
Baltimore American	1.90	Under 2-year contract, f. o. b. Baltimore.
Edward Ranie, Baltimore	2.40	
Massachusetts:		
Boston Journal	1.90	Under contract for 1907.
Fitchburg Sentinel Printing Co.	2.10	Do.
Lowell Courier-Citizen	2.25	Under contract to April, 1908.
Lynn Item	2.10	Under contract for 1907.
New Bedford Standard	1.92	F. o. b. New Bedford, under contract expiring in June.
North Adams Transcript	2.50	Quotation for 1908.
	2.10	Under contract for 1907.

^a Less 1 per cent.

TABLE 8.—*Prices of news-print paper*—Continued.

1907—Continued.

State, city, or town, and publication or publisher reporting price.	Price of news-print paper per hundred-weight.	Remarks.
Massachusetts—Continued.		
North Adams Herald.....	92.58	F. o. b. North Adams.
	2.00	Rolls, f. o. b. North Adams, odd lots.
	2.17	Quotation early in year f. o. b. Pittsfield.
Pittsfield Eagle.....	2.37 $\frac{1}{2}$	F. o. b. Pittsfield in lots.
Springfield Union.....	2.20	F. o. b. Springfield.
Springfield Republican.....	2.00	Under contract expiring in 1908.
Taunton Gazette.....	2.35	Until October 17.
Taunton Herald News.....	2.25	Under contract for 1907.
Worcester Post.....	1.90	Do.
Michigan:		
Adrian Daily Telegram.....	2.06	Ending August, 1907.
Detroit Daily Abend Post.....	2.10	Contract expiring July 1.
Detroit Free Press.....	1.90	Under contract.
Hancock Evening Journal.....	2.70	Under contract beginning in June.
Kalamazoo Gazette.....	2.12 $\frac{1}{2}$	January 1.
Kalamazoo Evening Telegraph.....	2.05	Contract for 1907.
Lansing State Republican.....	2.10	Until August.
Menominee Herald Leader.....	2.00	February 15.
	2.35	July 3.
Sault Ste. Marie News.....	2.40	September 14.
	2.60	
Minnesota:		
Duluth News-Tribune.....	1.92 $\frac{1}{2}$	Under two-year contract expiring September 30; delivered, freight, 5 cents.
Duluth Evening Herald.....	1.92 $\frac{1}{2}$	Under contract expiring September 30.
Duluth Miles Bunnell.....	1.92	
Minneapolis Journal.....	1.92	Under contract expiring November 1.
St. Paul Dispatch.....	2.51 $\frac{1}{2}$	Under contract.
Winona Republican Herald.....	2.40	First half of year.
	2.50	Beginning in summer, three months.
Mississippi:		
Jacksonville Daily News.....	2.45	Under contract.
Meridian Morning Dispatch.....	2.30	Do.
Missouri:		
Joplin News Herald.....	2.20	Contract beginning July, 1906.
	2.61	Price in March.
Kansas City (Mo.) Journal.....	1.80	F. o. b. at mills.
Sedalia Democratic Sentinel.....	2.50	Quotation for 1908.
St. Joseph Gazette.....	2.12 $\frac{1}{2}$	Under contract ending August 1.
St. Joseph News Press.....	2.40	At mill.
St. Louis Globe-Democrat.....	2.28	F. o. b. St. Joseph, on contract beginning June 1.
	2.10	Under contract.
Montana:		
Anaconda Standard.....	1.90	At mill, under contract expiring in fall.
Butte Miner.....	1.90	Under contract.
Nebraska:		
Green Island Independent.....	3.08	Price, July; no contract.
Lincoln State Journal.....	2.30	
Lincoln Daily Star.....	2.25 $\frac{1}{2}$	Delivered until August 1. Freight, 23 cents.
Omaha Daily Bee.....	2.15	F. o. b. mill, beginning February 20.
Omaha World-Herald.....	1.80	Price at Wisconsin mill.
New Hampshire:		
Manchester Union.....	1.90	Delivered under 2-year contract expiring September 1.
Manchester Mirror and American.....	2.25	
Keene Sentinel.....	2.20	Contract expiring July 1.
W. H. Pritchard, North Nashua.....	1.90	Contract for 1907.
	2.75	Quotation for 1908.
New Jersey:		
Asbury Park Press.....	2.50	F. o. b. Asbury Park.
Camden Post-Telegraph.....	2.15	
Newark Sunday Call.....	2.50	Quotations for renewal of contract expiring in August.
Newark Star.....	2.60	Contract for one year, beginning in May.
Elizabeth Journal.....	2.35	
New Jersey Freie Zeitung (Newark).....	2.00	
Paterson Guardian.....	2.15	Until March 1, 1907.
Paterson News.....	1.90	Until spring of 1908.
	2.60	
New Mexico:		
Albuquerque Morning Journal.....	2.95	F. o. b. Albuquerque, under contract for 1907.
Albuquerque Citizen.....	3.64	Beginning in May.

^a Less 2 per cent cash.

TABLE 8.—Prices of news-print paper—Continued.

1907—Continued.

State, city, or town, and publication or publisher reporting price.	Price of news-print paper per hundred-weight.	Remarks.
New York:		
Albany Argus.....	\$2.10	Under contract.
Albany Herald.....	2.75	Car lots f. o. b. Albany.
Amsterdam Evening Recorder.....	2.00	Delivered.
Binghamton Press.....	2.14	
Brooklyn Eagle.....	2.05	Under contract.
Crowell Publishing Company.....	2.50	Quotation f. o. b. Springfield, Ohio.
Elmira Advertiser.....	1.94	Under contract f. o. b. Springfield.
Gloversville Leader.....	2.00	Under contract.
Jamestown Morning Post.....	2.00	Do.
Little Falls Evening Times.....	2.10	Under contract expiring in July, f. o. b.
New York Journal of Commerce.....	2.10	Until August.
New York Staats-Zeitung.....	2.00	Until September 1.
New York Morning Telegraph.....	2.00	
Olean Evening Herald.....	2.50	
Olean Morning Times.....	1.95	Under contract ending in September.
Rochester Herald.....	2.75	
Rome Sentinel.....	2.05	Contract price.
Syracuse Post-Sentinel.....	2.00	Under contract.
Syracuse Journal.....	1.75	F. o. b. Syracuse, under contract.
Syracuse Herald.....	2.00	Do.
Troy Record.....	1.80	
Vernon Brothers & Co., New York. (For Modern Stories.)	1.90	Under contract, f. o. b. Troy.
	2.00	F. o. b. press room under contract expiring September 28.
North Carolina:		
Asheville Citizen.....	2.55	F. o. b. Asheville.
Asheville Gazette-News.....	2.50	Under contract.
W. C. Dowd, Charlotte.....	2.14	
Charlotte Observer.....	2.60	
Greensboro Daily Record.....	2.55	Under contract expiring May 1, 1908.
North Dakota:		
Grand Forks Evening Press.....	2.39	
Grand Forks Herald.....	2.60	Delivered under contract commencing in June.
Grand Forks Times.....	2.78	Contract.
Ohio:		
Akron Beacon-Journal.....	1.90	Under two-year contract expiring December 31, f. o. b. sidewalk.
Cincinnati Enquirer.....	2.05	Under contract.
Cleveland, Wachter and Anselger.....	2.00	Contract price fixed yearly.
Columbus Dispatch.....	2.00	
East Liverpool Evening Record.....	2.00	Year ending June 30, 1907.
Mansfield News.....	2.18	Contract.
Marietta Journal.....	2.75	Car lots.
Marion Star.....	2.65	
Sandusky Register.....	1.9885	Contract to January, 1908.
Toledo Express.....	2.42½	Delivered. Contract commencing May 1.
Youngstown Telegram.....	1.90	
Zanesville Times-Recorder.....	1.99	Under 5 years.
Oklahoma:		
Muskogee Times-Democrat.....	2.40	Contract expiring in November.
Oklahoma City Oklahoman.....	2.09	F. o. b. mill, under contract beginning January 31.
Pennsylvania:		
Allentown Item.....	2.40	
Allentown Morning Call.....	2.40	Contract made in May.
Altoona Tribune.....	2.25	Under contract expiring April 1, 1908.
Bethlehem Times.....	2.10	Under contract.
Bradford Era.....	2.20	Beginning in September, 1906.
Bradford Evening Star.....	2.75	Price in October.
Easton Free Press.....	2.10	Under contract f. o. b. Easton.
Gett and Geary, York.....	2.15	Under contract expiring in August.
Harrisburg Patriot.....	1.95	Under tonnage contract expiring about December 1.
Harrisburg Telegraph.....	1.95	Under contract.
Harrisburg Star-Independent.....	2.20	Do.
Johnstown Democrat.....	2.00	Do.
Johnstown Tribune.....	2.10	Under contract for 1907.
Lancaster Examiner.....	2.00	F. o. b. Lancaster, under contract.
McKeesport Daily News.....	2.00	Under contract expiring September 1.
Oil City Derrick.....	2.25-2.50	No contract.
Philadelphia Press.....	2.00	Under contract.
Philadelphia Inquirer.....	1.90	Do.
Pittsburg Leader.....	1.90	Do.
Pottsville Daily Republican.....	2.15	Under contract, delivered. Freight, 18 to 20 cents.
Reading Times.....	2.65	

a Less 4 per cent.

b Less 3 per cent.

TABLE 8.—*Prices of news-print paper*—Continued.

1906—Continued.

State, city, or town, and publication or publisher reporting price.	Price of news-print paper per hundred-weight.	Remarks.
Pennsylvania—Continued.		
Scranton Tribune.....	• \$2.20	Under contract expiring February 1, 1908.
Wilkesbarre Times.....	1.95	Under contract expiring July 31.
Williamsport News.....	2.27½	Contract beginning March 1.
Williamsport Sun.....	2.05	Under contract expiring in April.
Williamsport Gazette-Bulletin.....	2.60	Quotation in September.
	1.92	Until July, 1907.
Texas:		
Denison Herald.....	2.668	Under contract expiring in July.
El Paso Daily Times.....	2.65	
Fort Worth Telegram.....	1.90	Under contract ending January 1, 1908, f. o. b. mill.
Fort Worth Record.....	1.88	Contract for two years expiring July 1, f. o. b. mill.
Galveston Tribune.....	1.90	F. o. b. New England mill under contract.
Houston Post.....	1.88	F. o. b. mill.
Houston Chronicle.....	2.15	Beginning in February.
San Antonio Gazette.....	2.27	
San Antonio Light.....	1.88	At mill, under contract expiring in December.
Utah:		
Deseret News (Salt Lake).....	1.85	F. o. b. mill, under 2-year contract expiring February, 1908.
Salt Lake Tribune.....	2.15	Price at mill under contract beginning July 1.
Salt Lake Herald.....	2.15	Freight, 50 cents.
William Glassman, Ogden.....	3.05	F. o. b. New York mill. Freight \$1.05.
Vermont:		
Burlington Free Press.....	2.09	
Burlington Daily News.....	2.15	Under contract for 1907.
Deerfield Valley Times (Wilmington).....	• 2.50	F. o. b. mill, under 1-year contract expiring January 15, 1908.
St. Albans Messenger.....	2.35	Under contract expiring in spring of 1908.
Virginia:		
Bristol Herald-Courier.....	2.14	Beginning December 1, 1908.
Newport News Daily Press.....	2.30	Delivered under contract for 1907.
Norfolk Ledger Dispatch.....	2.10	Under contract.
Richmond News Leader.....	2.10	
Roanoke Evening World.....	2.15	Do.
Virginia Pilot (Norfolk).....	2.15	F. o. b. Norfolk, under 3-year contract expiring June 30, 1908.
West Virginia:		
Clarksburg Daily Telegram.....	2.25	
Fairmont West Virginian.....	2.60	Shipment in fall of 1907.
Parkersburg State Journal.....	2.42	
Wheeling News.....	2.00	} Quotation for 1905.
Wheeling Register.....	2.50	
Washington:	2.05	
Seattle Post-Intelligence.....	3.20	F. o. b. Seattle, beginning March 16.
Wisconsin:		
Eau Claire Leader.....	2.00	F. o. b. Eau Claire. Freight, 21½ cents.
Jacksonville Gazette.....	2.00	Delivered under contract.
La Crosse Leader-Press.....	2.60	F. o. b. La Crosse until August 1.
La Crosse Chronicle.....	2.57½	F. o. b. La Crosse, under contract for year ending June, 1908.
Madison State Journal.....	2.05	
Milwaukee Journal.....	1.90	F. o. b. Milwaukee, under contract expiring February 1, 1908.
Oshkosh Daily Northwestern.....	2.25	
Racine Journal.....	2.15	Delivered until September 1.
Wyoming:		
Cheyenne Tribune.....	2.10	At mill, under contract for 1907.
Rhode Island:		
Newport Daily News.....	2.40	Under contract for calendar year.
Providence Tribune.....	2.20	Under 5-year contract expiring February 29, 1912.
Providence Journal.....	2.10	Under 5-year contract expiring January 1, 1910.
Providence News Publishing Co.....	2.00	Price adjusted every November.
South Carolina:		
J. C. Hemphill, Charleston.....	2.15	Contract.
Columbia, The State.....	2.20	Delivered under contract expiring June 30. Freight, 38 cents.
South Dakota:		
Deadwood Pioneer Times.....	2.90	
Sioux Falls Daily Press.....	2.59	Delivered.

• Less than 2 per cent.

TABLE 8.—Prices of news-print paper—Continued.

1906—Continued.

State, city, or town, and publication or publisher reporting price.	Price of news-print paper per hundred-weight.	Remarks.
Tennessee:		
Chattanooga News.....	\$2.06	Contract canceled in April, f. o. b. Chattanooga under short-time contract.
	2.50	
	2.60	
Knoxville Sentinel.....	2.15	Under contract, delivered.
Memphis Commercial-Appeal.....	2.00	Delivered under contract.
Nashville American.....	2.12½	Until February 15, 1908.
General average price for 288 of the publications for which quotations are given.	2.28	

1908.

Arizona:		
Arizona Republican (Phoenix).....	a \$2.20	Price f. o. b. mill under contract beginning May 1, 1908; freight, \$1.80.
State Con. Publishing Co. (Tucson).....	2.60	Soft fold.
	2.45	Roll.
Arkansas:		
Hot Springs Daily News.....	2.57½	Price f. o. b. mill quoted in spring of 1908.
Little Rock Gazette.....	2.62	Price delivered under contract ending Jan. 1, 1908, about \$2.21 at mill.
California:		
Eureka Herald.....	3.60	Under contract.
Canada:		
Ottawa (Ontario) Citizen.....	2.00	Under 3-year contract beginning in May, 1907.
Colorado:		
Leadville Herald-Democrat.....	2.50	Contract price f. o. b. mill for 1908.
Connecticut:		
Ansonia Sentinel.....	2.50	Under contract expiring Dec. 1.
Bridgeport Standard.....	2.50	Under contract beginning May 1.
Hartford Evening Post.....	2.25	Under contract ending in December; quotation for 1909.
Hartford Courant.....	2.50	Under contract beginning in April.
Meriden Morning Record.....	b 2.60	Price f. o. b. Meriden under contract beginning Feb. 1.
New London Day.....	2.55	Under contract for 1908.
Waterbury Republican.....	2.37½	Under contract expiring in August.
Winsted Citizen.....	2.70	Under contract commencing in August, 1907.
Florida:		
Tampa Tribune.....	3.00	Under contract beginning January 1.
Tampa Times.....	2.80	Under contract for one year beginning August 1, 1907.
Georgia:		
Augusta Chronicle.....	2.60	Under contract expiring in December, price delivered; freight rate, 34 cents.
Columbus Enquirer Sun.....	2.85	Price delivered under contract for 1908.
Macon News.....	2.85	F. o. b. Macon, under contract for 1908.
Savannah Press.....	2.60	
Illinois:		
Bloomington Bulletin.....	2.50	Under contract expiring November 1.
Cairo Bulletin.....	2.64	
Chicago News and Record Herald.....	2.10	Delivered under contract.
Chicago Tribune.....	2.20	Do.
Chicago Abend Post.....	2.42½	Under contract expiring December 1.
Danville Commercial News.....	2.44½	Price f. o. b. Danville, under contract expiring July 1.
Decatur Herald-Dispatch.....	2.40	Delivered; price on open market.
Galena Gazette.....	2.70	Delivered under contract expiring in July.
Illinois State Register.....	2.40	F. o. b. Springfield. On open market; freight rate about 16 cents.
Moline Daily Dispatch.....	2.52½	Beginning August 1, 1907.
Quincy Whig.....	2.58	
Rock Island Argus.....	2.48	Under contract expiring in August.
Rockford Register Gazette.....	2.41	Contract for 1908.
Indiana:		
Evansville Journal-News.....	2.60	Delivered under contract expiring in August.
Evansville Courier.....	2.52	Delivered, beginning March 1.
Lafayette Courier.....	2.40	Open market.
Portland Commercial Review.....	2.06	Under contract for year ending August 1, 1908.
South Bend Tribune.....	2.45	Under contract.

a Net.

b Net cash 30 days.

TABLE 8.—Prices of news-print paper—Continued.

1908—Continued.

State, city, or town, and publication or publisher reporting price.	Price of news-print paper per hundred-weight.	Remarks.
Iowa:		
Burlington Hawkeye.....	\$2.56	Under contract expiring in December.
Council Bluffs Leader.....	2.50	Under contract expiring February 1, 1909.
Creston Advertiser.....	2.75	Under contract expiring September 1; delivered; freight 20 cents.
Davenport Democrat.....	2.50	Under contract ending in August.
Des Moines Capitol.....	2.50	Under contract expiring February 1, 1909.
Dubuque Times-Journal.....	2.50	Under contract expiring September 1.
Dubuque Telegraph Herald.....	2.49	Do.
Sioux City Tribune.....	2.50	Under contract expiring in August.
Waterloo Times Tribune.....	2.47½	Under contract ending in October.
Kansas:		
Atchison Globe.....	2.32	Delivered under contract.
Clay Center Republican.....	2.85	Quotation in May.
Coffeyville Journal.....	2.57	Half-car lot delivered.
W. P. Feder, Great Bend.....	3.15	No contract.
Iola Register.....	2.62	Carload lot bought in April.
Geo. W. Marble, Fort Scott.....	2.32	Under contract expiring in September.
Topeka Daily State Journal.....	2.35	Net Wisconsin mill quotation.
	2.60	Under contract for 1909 f. o. b. Topeka, price at mill \$2.29.
Wichita Beacon.....	2.42	
Kentucky:		
Desha Breckenridge, Lexington.....	2.40	Under contract to Jan. 1, 1910.
Louisville Evening Post.....	2.20	Do.
Louisville Herald.....	2.42	F. o. b. Herold; contract.
Louisville Anseiger.....	2.75	No contract.
Owensboro Messenger.....	2.62½	Under contract for 1908.
Paducah News-Democrat.....	2.62½	
Maine:		
Bangor Commercial.....	2.50	F. o. b. Bangor.
Biddeford Daily Journal.....	2.60	Quotation in May.
F. B. Nichols, Bath.....	2.75	Under 2-year contract beginning in summer of 1907.
Portland Evening Express.....	2.50	Contract expires 1911; price adjustable December of each year.
Portland Argus.....	2.40	
Maryland:		
Baltimore American.....	2.50	
Edward Randle, Baltimore.....	2.90	Under contract for 1908.
Massachusetts:		
Boston Journal.....	2.50	Do.
Fitchburg Sentinel.....	2.75	Do.
Lowell Courier-Citizen.....	2.60	Under contract beginning Apr. 1.
Lynn Item.....	2.50	Under contract for 1908.
New Bedford Standard.....	2.37½	Under contract expiring in June.
North Adams Transcript.....	2.50	Under contract to Jan. 31, 1909.
Pittsfield Eagle.....	2.20	Under contract for 1908.
Springfield Union.....	2.30	F. o. b. Springfield; under contract for 1908. Price \$1.80 at Canadian mill.
Springfield Republican.....	2.00	Under contract expiring July 1.
Taunton Herald-News.....	2.41	Quotation for new contract.
Taunton Gazette.....	2.60	Under contract for 1908.
Worcester Post.....	2.60	From October 17, 1907.
	2.40	Under contract expiring December 1.
Michigan:		
Adrian Daily Telegram.....	2.41	
Benton Harbor News-Palladium.....	2.60	Delivered under contract expiring in November.
Detroit Daily Abend-Post.....	2.35	Contract expiring July 1.
Detroit Free Press.....	2.40	Under contract.
Lansing State Republican.....	2.60	Contract for 1908.
Sault Ste. Marie Evening News.....	2.60	Do.
Minnesota:		
Duluth Evening Herald.....	2.38	Under contract expiring October 1, f. o. b. Duluth.
Duluth News-Tribune.....	2.38	Delivered under contract expiring September 1.
Minneapolis Journal.....	2.45	Under contract beginning November 1, 1907.
St. Paul Volkszeitung.....	2.07½	Under contract expiring June 10.
Winona Independent.....	2.35	Quotation (delivered).
Winona Republican-Herald.....	2.40	Under contract expiring October 1.
Mississippi:		
Jacksonville Daily News.....	2.89	Contract expiring February 1, 1909.
Meridian Morning Dispatch.....	2.70	
Missouri:		
Joplin News-Herald.....	2.20	Contract ending in July.
Joplin Globe.....	2.58	Renewal price.
	2.27½	Contract f. o. b. mill.

TABLE 8.—Prices of news-print paper—Continued.

1908—Continued.

State, city, or town, and publication or publisher reporting price.	Price of news-print paper per hundred-weight.	Remarks.
Missouri—Continued.		
Kansas City Journal.....	\$2.40	Contract beginning September, 1907.
Sedalia Democrat-Sentinel.....	2.63 ^a	Under contract expiring August 1.
St. Joseph News-Press.....	2.80	Quotation for new contract.
St. Louis Globe-Democrat.....	2.45	F. o. b. St. Joseph on contract beginning June 1.
Montana:	2.10	Under contract.
Anaconda Standard.....	2.36	At mill Missouri River, freight rate 95 cents.
Butte Miner.....	2.20	
Great Falls Tribune.....	2.27 ^a	Contract beginning October 1.
Nebraska:		
Grand Island Independent.....	3.19	Price in February; no contract.
Lincoln Daily Star.....	2.40	F. o. b. mill, under contract, expiring August 1; freight, 22 cents.
Omaha World Herald.....	2.30	Price at mill.
New Hampshire:		
Keene Sentinel.....	2.50	Contract expiring July 1.
Manchester Mirror and American.....	2.65	
Manchester Union.....	2.00	Contract expiring in August.
W. H. Prichard, North Nashua.....	2.45	Quotation for renewal.
New Jersey:	2.60	Contract for 1906.
Camden Post-Telegraph.....	2.65	
Elizabeth Journal.....	2.60	
Newark Star.....	2.50	
New Jersey Freie Zeitung (Newark).....	2.60	Contract beginning March 1.
Paterson Guardian.....	2.50	Contract beginning in spring.
New Mexico:		
Albuquerque Morning Journal.....	3.30	F. o. b. Albuquerque, under contract for 1908.
New York:		
Albany Herald.....	2.87	Car lots, f. o. b. Albany.
Albany Argus.....	2.60	Under contract.
Amsterdam Evening Recorder.....	2.60	Delivered.
Binghamton Press.....	2.60	Contract for 1908.
Brooklyn Eagle.....	2.50	Under contract for 1908.
Crowell Publishing Co.....	2.43	Canadian paper, under contract, f. o. b. Springfield, Ohio.
Ehmlra Advertiser.....	2.65	Under contract.
Gloversville Leader.....	2.60	Contract for 1908.
Jamestown Morning Post.....	2.45	Under contract beginning in July, 1907, f. o. b. Jamestown.
Kingston Freeman.....	2.50	Beginning in September, 1907.
Little Falls Evening Times.....	2.50	Beginning in August, 1907.
New York Staats Zeitung.....	2.45	
New York Journal of Commerce.....	2.47 ^a	Beginning September 1, 1907.
Olean Evening Herald.....	2.50	Under contract beginning in September, 1907.
Olean Morning Times.....	3.00	
Rome Sentinel.....	2.60	Under contract.
Syracuse Post Standard.....	2.50	F. o. b. Syracuse under contract.
Syracuse Herald.....	2.55	Under contract.
Syracuse Journal.....	2.30	Quotation from Canadian mill, f. o. b. Syracuse.
Troy Record.....	2.40 ^a	F. o. b. Syracuse, under contract for 1908.
North Carolina:	2.50	Under contract, f. o. b. Troy.
Asheville Gazette-News.....	3.00	Under contract for 1908.
Asheville Citizen.....	2.90	F. o. b. Asheville.
Charlotte Observer.....	2.57 ^a	Under contract beginning May 1.
W. C. Dowd, Charlotte.....	2.90	
North Dakota:		
Grand Forks Evening Press.....	2.89	Delivered under contract for 1908.
Grand Forks Herald.....	2.54 ^b	Under contract, delivered.
Grand Forks Times.....	2.58	Under contract expiring in August.
Ohio:	2.51	Quotation.
Akron Beacon-Journal.....	2.45 ^b	Under contract.
H. D. Campbell, Lima.....	2.45	Quotation delivered.
Cincinnati Enquirer.....	2.50	Under contract.
Cleveland Wacht and Anzeiger.....	2.60	Under 5 year contract expiring Jan. 1, 1910; price fixed yearly.
East Liverpool Evening Record.....	2.50	Beginning July, 1907.
Mansfield News.....	2.55	Contract expiring in August.
Toledo Express.....	2.42 ^a	Contract expiring in May, 1909.
Sandusky Register.....	1.99	Contract.
Youngstown Telegram.....	2.35	Delivered, contract expiring July 1.
Zanesville Times-Recorder.....	2.60	

^a Less 2 per cent.^b Less 3 per cent.

TABLE 8.—Prices of news-print paper—Continued.

1908—Continued.

State, city, or town, and publication or publisher reporting price.	Price of news-print paper per hundred-weight.	Remarks.
Oklahoma:		
Muskogee Times-Democrat.....	\$3.03	Under contract.
Pennsylvania:		
Allentown Morning Call.....	2.50	Under contract beginning May 15.
Altoona Tribune.....	2.50	New contract.
Albert J. Barr, Pittsburg.....	2.50	Less 3 per cent 30 days.
Bethlehem Times.....	2.20	Under 5-year contract expiring in 1910.
P. C. Boyle, Oil City.....	2.60	Under contract for 1908.
Bradford Era.....	2.56	Do.
Easton Free Press.....	2.50	Quotation in April.
Gitt & Geesey, York.....	2.95	Beginning in September, 1907.
Harrisburg Patriot.....	2.65	F. o. b. Easton, under contract for 1908.
Harrisburg Star-Independent.....	2.60	Beginning in August, 1907.
Harrisburg Telegraph.....	2.50	Under contract commencing December, 1907.
Johnstown Democrat.....	2.60	Under contract for 1908.
Johnstown Tribune.....	2.60	Do.
Lancaster Examiner.....	2.55	Do.
McKeesport Daily News.....	2.60	Do.
Philadelphia Inquirer.....	2.55	F. o. b. Glens Falls, freight paid; contract for 1908.
Pittsburg Leader.....	2.50	Under contract commencing Sept. 1, 1907.
Pottsville Daily Republican.....	2.20	Under contract.
Scranton Tribune.....	2.60	Do.
Williamsport Gazette-Bulletin.....	2.65	Under contract, delivered, freight 18 to 20 cents.
Wilkesbarre Times.....	2.65	Under contract for 1908.
Rhode Island:		
Newport Daily News.....	2.35	Under contract made in July, 1907.
Providence Tribune.....	2.50	Under contract beginning Aug. 1, 1907.
Do.....	2.75	Under contract for calendar year.
Providence News Democrat.....	2.60	Under 5-year contract expiring February 29, 1912, changing prices each year.
South Carolina:		
Columbia State.....	2.50	Under 5-year contract expiring January 1, 1910 prices adjustable every November.
South Dakota:		
J. C. Hemphill, Charleston.....	2.75	Contract.
Tennessee:		
Chattanooga News.....	2.70	Delivered under contract beginning July 1, 1907; freight 38 cents.
Knoxville Sentinel.....	2.48 to 2.55	Under contract for 1908.
Nashville American.....	2.90	Delivered.
Texas:		
Dennison Herald.....	2.82	No contract; price per ream.
El Paso Daily Times.....	2.77	Under short-time contract.
Fort Worth Record.....	2.62	Delivered under contract for 1908.
M. E. Foster, Houston.....	2.62	Under 1-year contract expiring February 15, 1909.
Fort Worth Telegram.....	2.85	Delivered under contract expiring in July; freight 64 cents.
Galveston Tribune.....	3.20	Under contract expiring November 1.
Houston Post.....	2.35	Six months' contract beginning July 1, f. o. b. mill.
San Antonio Light.....	2.25	Quotation for a year's contract.
Waco Times-Herald.....	1.80	Under contract expiring July 1, f. o. b. mill.
Deseret News (Salt Lake).....	1.80	F. o. b. Canadian mill, under contract expiring July 1, equal to \$2.10 New York mill.
William Glassman Ogden.....	1.95	Quotation for renewal at Canadian mill.
Salt Lake Herald.....	2.30	Quotation at American mill.
Salt Lake Tribune.....	2.42	Under contract for 1908; price at mill.
Burlington Free Press.....	2.37	F. o. b. New England mill under contract beginning in April.
Burlington Daily News.....	2.25	F. o. b. mill, under contract.
St. Albans Messenger.....	2.23	At mill under contract expiring in December.
	3.00	Under contract expiring Nov. 1.
	3.20	Renewal quotation.
Utah:		
Deseret News (Salt Lake).....	2.25	F. o. b. mill under contract beginning June 1, freight \$1.05.
William Glassman Ogden.....	3.20	Delivered price on new contract.
Salt Lake Herald.....	2.05	F. o. b. mill; new contract price made in May.
Salt Lake Tribune.....	2.65	F. o. b. Salt Lake, under 2-year contract beginning July 1, 1907; mill price, \$2.15.
Vermont:		
Burlington Free Press.....	2.60	Under contract expiring in October.
Burlington Daily News.....	2.70	Under contract for 1908.
St. Albans Messenger.....	2.60	Quotations for new contract.

* Less 3 per cent.

TABLE 8.—*Prices of news-print paper*—Continued.

1908—Continued.

State, city, or town, and publication or publisher reporting price.	Price of news-print paper per hundred-weight.	Remarks.
Virginia:		
Bristol Herald-Courier.....	\$2.71	September 1, 1907, freight, 30 cents.
Newport News Daily Press.....	2.85	Quotation for July delivery.
Norfolk Ledger-Dispatch.....	2.70	Delivered under contract for 1908.
Richmond News-Leader.....	2.60	Under contract for 1908.
Roanoke Evening World.....	2.50	
Virginia Pilot (Norfolk).....	2.80	Under contract for 1908.
	2.15	F. o. b. Norfolk, under 3-year contract expiring June 30.
Washington:		
Grays Harbor Washingtonian.....	3.20	
West Virginia:		
Clarksburg Daily Telegram.....	3.10	
Parkersburg State Journal.....	2.72	
	2.51	Under contract for part of 1908.
Wheeling Register.....	2.38	Quotations.
	2.42½	Purchase on open market.
Wisconsin:		
Eau Claire Leader.....	2.40	Under contract expiring in August.
Janesville Gazette.....	2.55	Under contract expiring Oct. 1.
La Crosse Chronicle.....	2.57½	Under contract for year ending July, 1909, f. o. b. La Crosse.
Madison State Journal.....	2.55	
Milwaukee Journal.....	2.30	Under contract f. o. b. Milwaukee.
Oshkosh Daily Northwestern.....	2.40	Under contract beginning in February.
Racine Journal.....	2.50	Under contract expiring Sept. 1; price at mill.
Wyoming:		
Cheyenne Tribune.....	2.55	At mill under contract beginning Jan. 1.
General average price for 215 of the publications for which quotations are given.	2.54	

The following table, presenting statistics relative to prices of paper, collected from 611 daily newspapers, classified according to circulation and distributed by States, lends interest to the average prices of paper already presented.

TABLE 9.—Number of daily newspapers reporting average price paid for paper in spring of 1908, average price including and excluding freight, and average price for selected years, also preference as to removal of tariff on wood pulp and news-print paper, papers grouped according to circulation, by States—Continued.

[illegible]

Idaho.....	2	3	28	1	3	15	1	3	40	1	3	40	1	3	40	1	2	3	00	1	2	70	.....	2	.....													
	1	3	15	1	3	15	1	3	40	1	3	40	1	2	50	1	2	50	1	2	70	.....	1	.....														
	1	3	40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5,000 but less than 10,000. Less than 5,000.....	47	2	60	34	2	49	13	2	89	35	2	55	10	2	78	38	9	42	2	22	34	2	19	14	2	34	7	1	78	3	1	87	2	1	70	34	1	12	
	1	2	35	10	2	49	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	10	2	40	10	2	49	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
50,000 but less than 100,000. 10,000 but less than 50,000. 5,000 but less than 10,000. Less than 5,000.....	27	2	46	9	2	46	13	2	89	17	2	63	8	2	40	9	22	2	35	17	2	20	6	2	56	3	1	65	2	1	80	1	1	80	9	1	1		
	27	2	46	9	2	46	13	2	89	17	2	63	8	2	40	9	22	2	35	17	2	20	6	2	56	3	1	65	2	1	80	1	1	80	9	1	1		
	27	2	46	9	2	46	13	2	89	17	2	63	8	2	40	9	22	2	35	17	2	20	6	2	56	3	1	65	2	1	80	1	1	80	9	1	1		
Indiana.....	46	2	72	16	2	52	30	2	83	30	2	68	3	2	73	33	13	44	2	41	30	2	25	16	2	09	9	2	06	3	2	13	3	2	14	31	4	11	
	1	2	15	1	2	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1	2	15	1	2	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
50,000 but less than 100,000. 10,000 but less than 50,000. 5,000 but less than 10,000. Less than 5,000.....	40	2	77	10	2	57	30	2	83	24	2	74	3	2	73	27	13	38	2	47	27	2	24	14	2	10	9	2	06	3	2	13	3	2	14	29	4	7	
	40	2	77	10	2	57	30	2	83	24	2	74	3	2	73	27	13	38	2	47	27	2	24	14	2	10	9	2	06	3	2	13	3	2	14	29	4	7	
	40	2	77	10	2	57	30	2	83	24	2	74	3	2	73	27	13	38	2	47	27	2	24	14	2	10	9	2	06	3	2	13	3	2	14	29	4	7	
Iowa.....	24	2	80	18	2	49	6	2	94	17	2	55	4	2	61	19	5	21	2	12	15	2	32	10	2	08	5	1	78	2	1	78	3	1	98	12	2	10	
	7	2	40	7	2	40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	7	2	40	7	2	40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10,000 but less than 50,000. 5,000 but less than 10,000. Less than 5,000.....	13	2	77	7	2	63	6	2	94	8	2	73	3	2	72	8	5	10	2	23	6	2	40	5	2	25	2	2	08	1	2	00	1	1	85	6	1	6	
	13	2	77	7	2	63	6	2	94	8	2	73	3	2	72	8	5	10	2	23	6	2	40	5	2	25	2	2	08	1	2	00	1	1	85	6	1	6	
	13	2	77	7	2	63	6	2	94	8	2	73	3	2	72	8	5	10	2	23	6	2	40	5	2	25	2	2	08	1	2	00	1	1	85	6	1	6	
Kansas.....	16	2	80	7	2	69	9	3	07	10	2	90	3	2	63	14	2	13	2	64	7	2	69	4	2	14	2	1	71	1	2	70	1	2	80	12	4	
	3	2	55	3	2	55	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	13	2	96	4	2	80	9	3	06	8	2	95	2	2	80	11	2	10	2	79	5	2	77	2	2	40	2	1	88	2	1	71	1	2	70	1	2	80	3
Kentucky.....	8	2	73	5	2	45	3	3	20	7	2	74	1	2	70	6	2	7	2	45	6	2	21	4	1	96	1	2	06	1	2	55	
	1	2	42	1	2	42	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	6	2	81	3	2	41	3	3	20	5	2	83	1	2	70	4	2	5	2	53	5	2	26	4	1	96	1	2	06	1	2	55	
Louisiana.....	1	2	40	1	2	40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	5	2	47	4	2	40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	3	2	25	2	2	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10,000 but less than 50,000. 5,000 but less than 10,000. Less than 5,000.....	2	2	25	2	2	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	3	2	62	2	2	55	1	2	75	2	2	55	1	2	75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	7	2	69	6	2	56	1	3	50	6	2	56	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Maryland.....	2	2	45	2	2	45	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1	2	90	1	2	90	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1	2	90	1	2	90	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
50,000 but less than 100,000. 10,000 but less than 50,000. 5,000 but less than 10,000. Less than 5,000.....	3	2	80	2	2	45	1	3	50	2	2	45	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	3	2	80	2	2	45	1	3	50	2	2	45	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	3	2	80	2	2	45	1	3	50	2	2	45	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE 9.—Number of daily newspapers reporting average price paid for paper in spring of 1908, average price including and excluding freight, and average price for selected years, also preference as to removal of tariff on wood pulp and news-print paper, papers grouped according to circulation, by States—Continued.

State and circulation.	Number of papers and average price per hundred weight, spring of 1908.				Freight.		How shipped.	Number reporting and average price paid per hundred weight January 1.												Removal of tariff.											
	Rolls.		Sheets.		Included.			Average price.		Not included.		Car lots.		Less than car lots.		Number.		Average price.		Number.		Average price.		Number.		Average price.		Yes.	No.		
	Number.	Average price.	Number.	Average price.	Number.	Average price.		Number.	Average price.	Number.	Average price.	Number.	Average price.	Number.	Average price.	Number.	Average price.	Number.	Average price.	Number.	Average price.	Number.	Average price.	Number.	Average price.	Number.	Average price.			Number.	Average price.
Massachusetts.	26	\$2.50	26	\$2.44	3	\$2.96	24	\$2.46	2	\$2.94	22	7	24	\$2.20	23	\$2.18	16	\$2.16	9	\$2.18	10	\$2.46	8	\$3.28	18	4	7				
	1	1.98	1	1.98	1	1.98	1	1.98	1	1.98	1	1	1	1.98	1	2.10	1	1.75	1	1.75	1	2.66	1	3.74	1	1	1				
	2	2.28	2	2.28	2	2.28	2	2.28	2	2.28	2	2	2	2.40	2	2.10	1	2.20	2	2.06	3	2.60	3	3.77	2	2	2				
	9	2.38	9	2.38	9	2.38	9	2.38	9	2.38	9	1	9	2.05	7	2.16	5	1.94	3	2.06	3	2.60	3	3.77	9	2	2				
	10	2.54	10	2.49	1	3.00	8	2.56	2	2.94	8	2	8	2.20	8	2.31	5	2.29	2	2.03	3	2.57	2	2.70	6	2	2				
	7	2.72	5	2.63	2	2.94	4	2.66	2	2.94	4	3	5	2.45	6	2.31	4	2.35	3	2.43	3	2.54	3	3.17	2	2	5				
	24	2.58	18	2.47	6	2.90	19	2.58	3	2.56	19	5	20	2.14	16	2.25	10	2.06	6	2.04	4	2.60	1	3.74	18	3	3				
Michigan.	4	2.40	4	2.40	4	2.40	4	2.40	4	2.40	4	4	2.12	4	2.11	3	2.29	2	1.78	1	1.78	1	3.74	3	1	1	1				
	2	2.47	4	2.47	4	2.47	4	2.47	4	2.47	4	4	2.05	3	2.24	1	2.06	1	1.90	1	2.02	1	3.74	3	1	1	1				
	16	2.65	10	2.50	6	2.90	11	2.69	3	2.56	11	5	13	2.17	9	2.31	6	1.98	3	2.27	3	2.79	12	1	3	1	3				
	12	2.53	8	2.44	4	2.71	10	2.49	1	2.90	10	2	12	2.11	10	2.27	6	2.01	5	1.99	3	2.85	2	3.47	10	1	1	1			
Minnesota.	2	2.41	2	2.41	2	2.41	2	2.41	2	2.41	2	2	1.93	2	2.19	2	1.78	2	1.95	2	2.65	2	3.47	2	2	2	2				
	4	2.42	4	2.42	4	2.42	4	2.42	4	2.42	4	4	2.03	4	2.15	4	2.12	3	2.02	1	3.25	4	4	1	1	1					
	6	2.64	2	2.50	4	2.71	4	2.61	1	2.90	4	2	6	2.23	4	2.42	4	2.12	3	2.02	1	3.25	4	4	1	1	1				
	2	3.05	1	2.89	1	3.20	2	3.05	1	2.90	1	1	2	2.70	1	2.20	1	2.05	1	2.05	1	2.65	2	3.47	2	2	2				
Mississippi.	1	2.89	1	2.89	1	2.89	1	2.89	1	2.89	1	1	2.50	1	2.20	1	2.05	1	1.91	1	2.02	1	3.74	3	1	1	1				
	1	3.20	1	3.20	1	3.20	1	3.20	1	3.20	1	1	2.90	1	2.60	1	2.05	1	2.05	1	2.65	2	3.47	2	2	2	2				
Missouri.	15	2.64	10	2.50	5	2.93	8	2.61	4	2.85	11	4	13	2.37	8	2.29	3	2.20	3	1.91	3	2.63	2	3.63	9	3	3	3			
	2	2.26	2	2.26	2	2.26	2	2.26	2	2.26	2	2	2.24	2	2.24	2	2.14	2	1.91	2	2.45	1	3.25	2	2	2	2				
New York.	4	2.53	4	2.53	4	2.53	4	2.53	4	2.53	4	4	2.12	3	2.24	3	2.31	2	1.90	1	3.00	1	4.00	4	2	2	2				
	5,000 but less than 10,000.	2	2.61	2	2.61	2	2.61	2	2.61	2	2	2	2.43	2	2.43	1	2.32	1	1.90	1	3.00	1	4.00	4	2	2	2				
	5,000 but less than 10,000.	2	2.61	2	2.61	2	2.61	2	2.61	2	2	2	2.43	2	2.43	1	2.32	1	1.90	1	3.00	1	4.00	4	2	2	2				
	Less than 5,000.	7	2.84	2	2.62	6	2.93	4	2.78	3	2.97	3	4	2.43	2	2.43	2	2.37	2	2.45	1	3.00	1	4.00	4	2	2	2			

	4	2.99	2	2.76	2	3.23	2	3.30	2	2.83	3	1	4	2.60	1	2.60	1	2.60	1	2.85	...	24
Montana.....	1	2.36	1	2.36	1	2.36	1	2.36	1	2.36	1	1	1	1.95	...	...	...	...	...	1	2.85	1
10,000 but less than 50,000.....	1	3.15	1	3.15	1	3.15	1	3.15	1	3.15	1	1	1	2.85	...	...	...	...	...	1	2.85	1
5,000 but less than 10,000.....	2	3.23	2	3.23	2	3.23	2	3.23	2	3.23	2	1	1	2.80	1	2.60	1	2.60	1	2.80	...	2
Less than 5,000.....	5	2.91	2	2.59	3	3.13	3	2.97	2	2.83	4	1	4	2.53	3	2.46	2	1.98	1	2.10	1	4.00
Nebraska.....	1	2.40	1	2.40	1	2.40	1	2.40	1	2.40	1	1	1	2.23	1	2.43	...	...	...	1	2.10	4
10,000 but less than 50,000.....	1	2.98	1	2.98	1	2.98	1	2.98	1	2.98	1	1	1	2.61	2	2.48	2	1.98	1	2.10	1	4.00
5,000 but less than 10,000.....	3	3.06	1	2.78	2	3.20	2	2.97	1	3.25	2	1	3	2.61	2	2.48	2	1.98	1	2.10	1	4.00
Less than 5,000.....	1	2.60	...	...	1	2.60	...	...	1	2.60	1	...	...	1	2.05	...	...	...	...	...	1	...
Nevada.....	1	2.60	...	...	1	2.60	...	...	1	2.60	1	...	...	1	2.05	...	...	...	...	...	1	...
Less than 5,000.....	1	2.60	...	...	1	2.60	...	...	1	2.60	1	...	...	1	2.05	...	...	...	...	...	1	...
New Hampshire.....	5	2.56	4	2.46	1	2.95	4	2.51	...	...	4	1	5	2.20	4	2.40	3	2.33	2	1.95	...	5
10,000 but less than 50,000.....	1	2.00	1	2.00	...	...	1	2.00	...	...	1	1	1	1.90	1	2.48	1	3.00	1	2.15	...	1
5,000 but less than 10,000.....	1	2.75	1	2.75	...	...	1	2.75	...	...	1	1	1	2.33	3	2.37	2	2.00	1	1.75	...	1
Less than 5,000.....	3	2.68	2	2.55	1	2.95	3	2.68	...	...	2	1	3	2.33	3	2.37	2	2.00	1	1.75	...	1
New Jersey.....	18	2.60	16	2.49	2	3.38	12	2.57	3	2.87	15	3	18	2.11	14	2.24	9	2.39	6	2.33	3	3.07
50,000 but less than 100,000.....	1	2.50	1	2.50	...	...	1	2.50	...	...	1	1	1	2.35	1	2.40	1	2.15	1	2.30	1	3.75
10,000 but less than 50,000.....	3	2.42	3	2.42	...	...	1	2.42	...	...	3	3	3	1.97	2	2.00	2	1.93	...	...	...	1
5,000 but less than 10,000.....	5	2.53	5	2.53	...	...	5	2.53	...	...	5	5	5	2.13	4	2.39	3	2.50	3	2.38	1	2.20
Less than 5,000.....	9	2.70	7	2.51	2	3.38	6	2.62	3	2.87	6	3	9	2.12	7	2.20	3	2.66	2	2.25	1	3.25
New Mexico.....	2	3.38	1	3.30	1	3.45	1	3.30	...	...	2	2	2	3.26	1	2.95	...	...	...	...	2	...
Less than 5,000.....	2	3.38	1	3.30	1	3.45	1	3.30	...	...	2	2	2	3.26	1	2.95	...	...	...	...	2	...
New York.....	61	2.60	51	2.52	10	2.99	45	2.58	5	2.84	46	15	59	2.17	54	2.24	38	2.22	20	2.06	12	3.08
100,000 and over.....	1	2.50	1	2.50	...	...	1	2.50	...	...	1	1	1	2.05	3	2.17	2	2.03	2	2.18	2	3.13
50,000 but less than 100,000.....	3	2.35	3	2.35	...	...	3	2.35	...	...	3	3	3	2.02	15	2.22	14	2.15	7	2.01	3	3.50
10,000 but less than 50,000.....	16	2.48	16	2.48	...	...	15	2.45	...	...	13	15	15	2.01	11	2.32	6	2.31	4	2.14	3	2.50
5,000 but less than 10,000.....	11	2.51	10	2.48	1	2.80	9	2.58	...	...	10	11	11	2.01	11	2.32	6	2.31	4	2.14	3	2.50
Less than 5,000.....	30	2.72	21	2.60	9	3.01	18	2.66	5	2.84	19	11	30	2.32	23	2.23	14	2.27	7	2.04	4	2.68
North Carolina.....	6	2.92	4	2.73	2	3.30	5	2.88	1	3.10	4	2	6	2.60	5	2.39	3	2.28	2	2.24	...	6
10,000 but less than 50,000.....	1	2.55	1	2.55	...	...	1	2.55	...	...	1	1	1	2.55	1	2.35	...	...	...	...	1	...
5,000 but less than 10,000.....	1	2.60	1	2.60	...	...	1	2.60	...	...	1	1	1	2.60	1	2.35	...	...	...	...	1	...
Less than 5,000.....	4	3.09	2	2.88	2	3.30	3	3.08	1	3.10	2	2	2	2.61	3	2.36	2	2.33	1	2.35	...	4
North Dakota.....	1	2.64	1	2.64	...	...	1	2.64	...	...	1	1	1	2.46	...	...	...	...	...	...	1	...
5,000 but less than 10,000.....	1	2.64	1	2.64	...	...	1	2.64	...	...	1	1	1	2.46	...	...	...	...	...	...	1	...

TABLE 9.—Number of daily newspapers reporting average price paid for paper in spring of 1908, average price including and excluding freight, and average price for selected years, also preference as to removal of tariff on wood pulp and news-print paper, papers grouped according to circulation, by States—Continued.

	Number of papers and average price per hundred weight, spring of 1908.						Freight.			How shipped.	Number reporting and average price paid per hundredweight January 1.												Removal of tariff.						
	Total.		Rolls.		Sheets.		Included.	Average price.			Not included.	Average price.	1907.		1905.		1900.		1897.		1894.		1890.		Yes.	No.	Not stated.		
	Number.	Average price.	Number.	Average price.	Number.	Average price.		Number.	Average price.				Number.	Average price.	Number.	Average price.	Number.	Average price.	Number.	Average price.	Number.	Average price.	Number.	Average price.				Number.	Average price.
Ohio.	61	\$2.63	32	\$2.52	29	\$2.76	45	\$2.60	2	\$3.03	50	11	56	\$2.26	42	\$2.17	24	\$2.11	14	\$2.03	11	\$2.23	6	\$3.16	45	3	13		
	2	2.35	2	2.35			2	2.35			2		2	2.08	2	2.05	2	2.05	2	1.90	1	2.25	1	3.00		1	1		
	7	2.51	7	2.51			6	2.50			7		7	2.04	7	2.16	6	2.09	4	2.03	2	2.36	2	3.28	7	2	2		
	9	2.58	8	2.52	1	3.00	8	2.56			7	2	9	2.19	7	2.18	3	2.04	2	1.98	1	2.50	1	3.75	7	2	2		
	43	2.68	15	2.54	28	2.75	30	2.65	2	3.03	34	9	38	2.33	26	2.18	13	2.14	6	2.09	7	2.15	2	2.83	31	2	10		
Oklahoma.	7	3.14	3	2.75	4	3.44	6	3.31	1	2.18	5	2	6	2.89	4	2.79	1	3.00							5		2		
	1	2.18	1	2.18			2	3.04		1	2.18	1	2	1.90	1	2.35									1		1		
	2	3.04	2	3.04			4	3.44			2	2	3	3.21	2	3.21	1	3.00							3		1		
	4	3.48	1	3.60	3	3.43				3	3.30	2	3	3.47	3	3.27	3	2.95	1	2.60					1		3		
Oregon.	4	3.48	1	3.60	3	3.43				3	3.30	2	3	3.47	3	3.27	3	2.95	1	2.60					1		3		
	Less than 5,000.																												
Pennsylvania.	58	2.61	45	2.55	13	2.82	47	2.60	3	2.86	48	10	48	2.22	41	2.23	25	2.13	14	1.95	9	2.09	6	2.47	40	2	16		
	2	2.25	2	2.25			2	2.25			2		2	1.95	1	2.15	1	1.93	1	1.85	1	2.30	1	3.00	1	1	1		
	50,000 but less than 100,000.																												
	10,000 but less than 50,000.																												
	5,000 but less than 10,000.																												
Less than 5,000.	33	2.69	20	2.61	13	2.82	26	2.69	3	2.86	24	9	26	2.33	21	2.24	8	2.26	3	2.11	2	2.08	4	2.08	23	1	9		
	Less than 5,000.																												
Rhode Island.	5	2.67	5	2.67			5	2.67			5		4	2.18	3	2.32	3	2.13	2	2.24	1	2.60	2	3.51	3		2		
	1	2.50	1	2.50			1	2.50			1		1	2.10	1	2.15	1	2.15							1				
	10,000 but less than 50,000.																												
	Less than 5,000.																												

South Carolina.	5	2.74	4	2.74	1	2.75	4	2.74	1	2.75	4	1	5	2.26	2	2.40	2	2.45	1	1.93	...	3	1
10,000 but less than 50,000.	1	2.70	1	2.70	...	...	...	1	2.70	...	...	...	1	2.20	1	2.55	1	2.40	1	1.93	...	...	...
Less than 5,000.	4	2.75	3	2.75	1	2.75	3	2.75	1	2.75	3	1	4	2.28	1	2.25	1	2.50	...	...	...	1	2
South Dakota.	5	2.83	2	2.56	3	3.01	3	2.67	...	...	...	3	2	5	2.57	4	2.31	3	2.23	1	2.35	...	5
5,000 but less than 10,000.	2	2.56	2	2.56	...	...	...	2	2.56	...	...	2	2	2.30	1	2.50	1	2.05	...	...	...	2	...
Less than 5,000.	3	3.01	...	...	...	...	...	1	2.90	...	...	1	3	2.75	3	2.25	2	2.33	1	2.36	...	3	...
Tennessee.	4	2.63	4	2.63	...	...	...	3	2.63	...	...	4	...	4	2.06	3	2.23	2	2.18	2	2.03	1	2.55
50,000 but less than 100,000.	1	2.78	1	2.78	...	...	...	1	2.78	...	...	3	...	1	2.05	...	...	...	...	...	...	...	1
10,000 but less than 50,000.	3	2.58	3	2.58	...	...	...	2	2.56	...	...	3	...	3	2.06	3	2.23	2	2.19	2	2.03	1	2.55
Less than 5,000.	13	2.96	7	2.61	6	3.37	6	2.96	5	2.72	9	4	13	2.66	11	2.48	7	2.66	5	2.54	2	3.17	13
Texas.	3	2.19	3	2.19	...	...	...	1	2.34	2	2.11	3	...	3	2.11	3	2.19	2	2.10	1	2.71	...	3
10,000 but less than 50,000.	4	2.80	3	2.66	1	3.20	2	2.67	1	2.77	4	...	...	2	2.53	4	2.50	4	2.75	3	2.20	1	2.34
5,000 but less than 10,000.	6	3.46	1	3.75	5	3.40	2	3.23	2	3.55	2	4	6	3.00	4	2.66	1	3.40	1	3.40	1	4.00	6
Less than 5,000.	5	2.42	5	2.42	...	...	...	2	2.90	3	2.09	5	...	5	2.31	5	2.30	4	2.06	3	1.92	2	1.87
Utah.	1	2.65	1	2.65	...	...	...	1	2.65	...	...	1	...	1	2.65	1	2.88	1	2.60	...	...	...	1
10,000 but less than 50,000.	2	2.67	2	2.67	...	...	...	1	3.15	2	2.18	2	...	2	2.54	2	2.40	1	1.88	1	1.75	...	2
5,000 but less than 10,000.	2	2.05	2	2.05	...	...	...	2	2.03	2	2.03	2	...	2	1.90	2	1.90	2	2.00	2	2.00	2	1.87
Less than 5,000.	8	2.65	5	2.62	3	2.70	7	2.66	...	...	...	6	2	8	2.22	6	2.25	5	2.18	2	2.12	1	2.68
Vermont.	2	2.65	2	2.65	...	...	...	1	2.70	...	...	2	...	2	2.12	2	2.09	2	1.97	...	...	...	1
5,000 but less than 10,000.	6	2.65	3	2.60	3	2.70	6	2.65	...	...	...	4	2	6	2.26	4	2.33	3	2.32	2	2.12	1	2.68
Less than 5,000.	10	2.71	8	2.67	2	2.88	8	2.73	1	2.85	10	10	2.29	6	2.23	3	2.17	...	...	...	...	...	2
Virginia.	3	2.46	3	2.46	...	...	...	2	2.48	...	...	3	...	3	2.09	2	2.25	1	2.25	...	...	...	3
10,000 but less than 50,000.	1	2.75	1	2.75	...	...	...	1	2.75	...	...	1	...	1	2.20	...	...	...	...	...	...	...	3
5,000 but less than 10,000.	6	2.83	4	2.80	2	2.88	5	2.82	1	2.85	6	6	2.41	4	2.21	2	2.13	...	...	...	...	...	5
Less than 5,000.	3	2.89	3	2.89	...	...	...	3	2.89	...	...	3	...	3	2	2.54	2	2.62	...	...	...	...	2
Washington.	2	2.54	2	2.54	...	...	...	2	2.54	...	...	2	...	2	2.54	2	2.62	...	...	...	...	...	1
10,000 but less than 50,000.	1	3.60	1	3.60	...	...	...	1	3.60	...	...	1	...	1	...	...	...	...	...	...	...	...	1
Less than 5,000.	9	2.60	6	2.49	3	2.82	5	2.71	...	...	...	8	1	9	2.34	5	2.10	3	2.00	2	2.10	2	2.50
West Virginia.	1	2.50	1	2.50	...	...	...	1	2.50	...	...	1	...	1	2.00	1	1.90	1	1.80	1	1.80	1	4.00
10,000 but less than 50,000.	1	2.50	1	2.50	...	...	...	1	2.50	...	...	1	...	1	2.00	1	1.90	1	1.80	1	1.80	1	4.00
5,000 but less than 10,000.	7	2.53	4	2.48	3	2.82	3	2.85	...	...	...	6	1	7	2.43	3	2.28	1	2.40	...	...	...	1
Less than 5,000.	7	2.53	4	2.48	3	2.82	3	2.85	...	...	...	6	1	7	2.43	3	2.28	1	2.40	...	...	...	1

TABLE 9.—Number of daily newspapers reporting average price paid for paper in spring of 1908, average price including and excluding freight, and average price for selected years, also preference as to removal of tariff on wood pulp and news-print paper, papers grouped according to circulation, by States.—Continued.

State and circulation.	Number of papers and average price per hundred weight, spring of 1908.				Freight.		How shipped.	Number reporting and average price paid per hundred weight January 1.												Removal of tariff.										
	Total.	Rolls.	Sheets.																											
	Number.	Average price.	Number.	Average price.	Number.	Average price.	Included.	Average price.	Not included.	Average price.	Car lots.	Less than car lots.	Number.	Average price.	Number.	Average price.	Number.	Average price.	Number.	Average price.	Number.	Average price.	Number.	Average price.	Number.	Average price.	Number.	Average price.	Yes.	No.
Wisconsin.....	22	\$2.52	15	\$2.41	7	\$2.76	15	\$2.46	7	\$2.64	15	7	18	\$2.24	17	\$2.33	10	\$2.15	3	\$1.61	1	\$2.80	1	\$3.50	16	2	4	Not stated.		
100,000 and over.....	1	2.30	1	2.30	1	2.30	1	2.30	1	2.30	1	1	1	1.90	1	2.25	1	1.60	1	1.43	1	2.80	1	3.50	16	2	4	1	1	
10,000 but less than 50,000.....	2	2.20	2	2.20	2	2.20	2	2.20	2	2.20	2	2	2	2.10	2	2.15	2	2.18	2	2.18	2	2.80	2	3.50	13	2	1	1	1	
5,000 but less than 10,000.....	3	2.23	3	2.23	3	2.23	3	2.19	3	2.30	3	3	3	2.06	3	2.08	3	2.22	3	2.22	3	2.80	3	3.50	13	2	1	1	1	
Less than 5,000.....	16	2.03	9	2.52	7	2.76	10	2.59	6	2.69	9	7	13	2.32	12	2.42	7	2.22	2	1.70	1	2.80	1	3.50	13	2	1	1	1	
Wyoming.....	1	3.15	1	3.15	1	3.15	1	3.15	1	3.15	1	1	1	2.70	1	3.05	1	3.05	1	3.05	1	2.80	1	3.50	13	2	1	1	1	
5,000 but less than 10,000.....	1	3.15	1	3.15	1	3.15	1	3.15	1	3.15	1	1	1	2.70	1	3.05	1	3.05	1	3.05	1	2.80	1	3.50	13	2	1	1	1	1

TARIFF ON SULPHITE FIBER.

KATAHDIN PULP AND PAPER COMPANY,
Lincoln, Me., December 21, 1908.

Hon. J. R. MANN,
House of Representatives, Washington, D. C.

MY DEAR SIR: Replying to yours of December 9, I have no objection to your printing the statement which I had prepared for the Ways and Means Committee, if it would have any weight in relation to the decision on the tariff for sulphite pulp.

Since writing you on the 5th instant the importers of European sulphite have made a further discount in their prices, and the entire industry is very seriously affected by it.

With kindest regards, I remain,
Yours, very truly,

N. M. JONES.

KATAHDIN PULP AND PAPER COMPANY,
Lincoln, Me., December 5, 1908.

Hon. JAMES R. MANN,
House of Representatives, Washington, D. C.

MY DEAR MR. MANN: I am in receipt of the six copies of Hearing No. 28 of the pulp and paper investigation kindly sent to me to Bangor by your direction. I wish to thank you for your thoughtfulness in the matter, and assure you that I appreciate it very much. I take pleasure in sending herewith a statement which I made up to present to the Committee on Ways and Means in Washington at the hearing, but was unable to attend, giving a few of my reasons why duties on sulphite fiber should not be reduced on Canadian product. I am also trying to put in writing my reasons why the duties on European pulp should be increased. As soon as I have them in shape I will furnish you a copy of same.

The sulphite-pulp business has been having a very hard time during the past year, and between ourselves, we have all lost money, and for your information, I also inclose copy of letter received by me today from our western brokers, relating to the offers that are being made to the western mills on foreign sulphite pulp by brokers. At the prices quoted in this letter, if the sulphite mills in this country had to compete, we would either have to close our plants or go into bankruptcy in a very short time. I will not undertake to make any arguments in this letter. I simply feel that I would like to give you such information as I have at my command. If you care for further data in connection with this matter, I should be pleased to send it to you from time to time, as I believe that you are willing to give to our industry all the protection that we should have, and I for one do not feel that we are asking for more than we are entitled to.

With kindest regards, I remain,
Yours, very truly,

N. M. JONES.

NOVEMBER 20, 1908.

GENTLEMEN: We have been in hopes to hear from you right along regarding some proposals, either in unbleached sulphite or strong unbleached soda pulp, and we do not understand the reason for your silence. We have quite a few attractive offers at present.

We refer especially in the first place to our extra strong Mitscherlich unbleached sulphite, which you know so well and which we quote at a price of \$2.02½.

Another grade is our No. 33, which is also a Mitscherlich sulphite, and of a quality between prime and secondary. We quote you at a price of \$1.82½.

Should you be able to use a strong ordinary unbleached sulphite, but not prepared by the Mitscherlich process, please refer to our grade No. 41, which we quote you at \$1.72½.

With reference to unbleached soda pulps, we call your attention to the following grades: No. 631 we quote you at a price of \$1.75; No. 629 we quote you at a price of \$1.70; No. 627 we quote you at a price of \$1.75.

If you are in for a very strong Kraft soda pulp, please refer to our grade No. 625, which we quote you at a price of \$1.95.

Should you need to make a very strong colored golden brown sheet, please refer to our grade No. 626, which we can get for you at \$2.05. Please note that this grade is very easy bleaching and perfectly clean. Of all grades, samples herewith inclosed.

Our terms are simply net cash thirty days from date of arrival of the goods at Baltimore. Prices for goods quoted to be per 100 pounds, air dry weight, i. e., 90 per cent absolutely dry pulp, gross weight for net weight, goods wrapped in burlap, ex. dock Baltimore, duty paid, and subject to being unsold.

Yours, very truly,

SCANDINAVIAN AMERICAN TRADING CO.

REASONS WHY DUTIES ON SULPHITE FIBER SHOULD NOT BE REDUCED ON CANADIAN PRODUCT.

[Statement by N. M. Jones.]

"The man who would be really benefited by free pulp would not be the American consumer, but the Canadian producer."

The average cost of production in America over Canada is fully equivalent to the duty, and if American mills are only obtaining a living profit, or selling at cost or below, Canadian mills can supply to this market at a profit, if present low duty is repealed. Under conditions which have existed during the past year Canada could force the closing of our mills, as freights are about equal. Canadian farmers and timber-land owners not favorably located near mills that can consume their pulp wood and logs are allowed to put them into this country duty free, yielding large incomes to their owners.

In 1907 Canada sold to the United States, duty free, 650,000 cords of pulp wood, which at \$5 per cord gave them an income of \$3,250,000.

Senator W. C. Edwards, who is one of the largest operating lumbermen and timber holders in Canada, stated in the Canadian senate at a sitting in May, 1908: He did not favor an abrupt stop to the movement of pulp and pulp wood from Canada to the United States. Senator Edwards also corrected the statement that the American timber supply had been exhausted.

If the Canadian supplies were cut off, the American mills would not immediately stop operations, but on the other hand the Canadians would find themselves without a market. He saw the agitation against the exportation of logs and pulp wood came from Canadian makers who wanted to get the price of their raw material reduced.

The senator made one statement which was a daring one in view of the popular idea as to the results of the prohibition of log exports from Ontario. He said that the province had lost by that action; that to-day a sound log on the shore of Georgian Bay was worth more than the lumber in that log after it was cut, owing to the fact that it cost less to export a sound log than the lumber, for when the log was in the American mill, the by-products other than lumber would pay the cost of transportation. In his opinion more lumber in Canada dies and goes to destruction in the forest each year than all such growth that is cut. Apparently, the senator would remove all restrictions on the export of forest products, but would make more stringent regulations as to logging operations.

A large amount of the wood supplied us from Canada has been an aid to their agricultural development. The farmers have had an assured and profitable income while clearing their lands, and this advantage will continue as long as we admit pulp wood duty free.

The sulphite schedule with Canada should not be touched. Prices of sulphite have not materially advanced in eighteen years, while the cost of wood has advanced nearly 100 per cent and labor about 40 per cent. Prices have been kept down below a reasonable profit by the continual development of new mills in this country, and on account of the low duty, Canadian developments and competition and the competition from Europe have prevented the mills of this country obtaining a fair or remunerative profit on their investments, notwithstanding many of them have owned their own timber.

The production of sulphite pulp has increased from 200 tons daily in 1890 to 4,500 tons daily in 1908 in the United States and now represents an investment of more than \$25,000,000 in mills alone.

There is no sulphite pulp trust. The tariff on pulp has assumed a fictitious prominence in the minds of a few because of the unfounded talk about such a trust, and because of the mistaken supposition on the part of the public that there is a limitless supply of timber in Canada, and because of the further belief that to draw on this supposed immense supply will promote forest preservation in the United States, and for relief from the supposed exactions of the pulp trust it is proposed to remove the duty on pulp imported from Canada into the United States.

It is realized by few how low the duty now is on unbleached sulphite. The duty amounts to less than 8 per cent ad valorem against an average for the entire dutiable articles of about 40 per cent. Since it is a specific duty, it does not recognize the value of the importation. It is the lowest from a percentage standpoint on an article we most need and that is abundantly produced in this country. Canada has been shipping to this country freely under the tariff, and probably all she would have shipped if there had been no tariff.

There has been great activity in the sulphite pulp development in Canada, and mills have been built apparently as freely as in the United States. It seems doubtful if the removal of the present low duty would make any particular change in the rate of development of the Canadian industry. Since Canadian sulphite importations constitute less than 10 per cent of our normal production, it is questioned if it would have any material effect on prices. If it does not, there would be no material benefit to the consumer of paper, and the Government would lose nearly \$500,000 a year revenue; and it is fair to assume that all or a part of the duty would be added to the value of Canadian stumpages, or after the elimination of the American mills to any increase in the value of their product.

The removal of the duty would have an effect in this country chiefly on the lower grades, which are, under normal conditions, difficult to dispose of and which determine the profitability of the sulphite pulp industry and the feasibility of using forestry methods in lumbering by the utilization of forest products unfit for lumber and from which the lower grades of sulphites are produced. Canada's production of sulphite is principally of the lower grade.

To reduce the price of our low grades of pulp would prevent so close a utilization of the timber as is customary now, and would postpone the day when conservative lumbering along forestry lines will be practicable.

If the American consumer of sulphite pulp desires the forest preserved, we must follow the lumberman, using with him material unfit for lumber, and we must be protected on the lower grades of pulp produced from such material; otherwise it will become a loss and waste and a loss to the Government in the value of its own timber from a national standpoint of the removal of the duty.

Forestry methods have begun to be adopted simply because the value of timber and the by-products of the forest are becoming high enough to warrant it. Americans have a large amount of money invested in timber. Canadians in British Columbia get their timber for nothing and pay merely a carrying charge, which amounts to only about 1 cent per 1,000 feet per annum. They pay for the timber when they cut it (50 cents a thousand), and therefore have no material investment.

British Columbia timber, so far as it is held by private parties, is held on definite terms and periods. There is no advance in price to the limit holder, as it becomes no more valuable, except as a holder may sell his license to someone else.

In Ontario, on the other hand, there are auction sales which fix the price of limits the government has to offer, and to whatever increased extent Canadian sulphite pulp is imported, to that degree will the industry of the United States, which is established on a certain basis of demand and a certain adjustment thereto to supply, be injured.

Further, it would limit the demand and infallibly lower the wages of the now well-paid mill labor, which includes several thousand men.

To repeat, if the removal of the duty would not affect prices in the United States, it would do no one good, and would deprive the Government of needed revenue. If it would decrease prices, it would be only to an extent which would not materially benefit the American consumer, but would tend to the destruction instead of the preservation of our forests, would work serious damage to American manufacturers and imperil the investments of many of them, and put wages back to the standard of ten years ago, driving much of the labor to other fields of employment.

Certain of the Canadian provinces absolutely prohibit the exportation of pulp wood, etc. Such is the case at present with Ontario and British Columbia, the greatest two sources of supply of lumber for this country. Quebec gives a rebate on crown dues when material cut from crown lands is manufactured in the provinces. This is equivalent to 25 cents per cord export duty on pulp, but export is not prohibited. New Brunswick and Nova Scotia also permit exportation, and until the provinces of Ontario and British Columbia recede from their present position no consideration should be given Canadian interests, as the advantages to them accruing from a market for the disposing of their raw material would be greater than the advantage of free sulphite pulp to our consumers.



